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ManagerEditor

The Production and Management Journal Covering North America's Wood Pulp, Paper, Paperboard and Cellulose Industries

by MILLER FREEMAN PUBLICATIONS, INC. CHARLES L. SHAW......Canadian Editorial Director W. E. CROSBY

...Forestry Editor Associate Editor

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"The Cellulose Age"

EDITORIALS

Putting Faith in Employes' Intelligence

We recently heard two leaders in the pulp and paper industry speaking before small and informal gatherings on isolated occasions, about expressing their faith in intelligence of labor and the greater benefits when industry sets its labor standards on a high plane.

They expressed themselves on management and labor, not as some think of it with a hyphen in between but with an "and' for fusion.

One spoke of the habit in the Middle West to refer to the shortage of good men for pulpwood logging. He asked, now that there is a high inventory of pulpwood in the mills, and some of the peak is off the logging, "Is there a future in the woods? Is there a stability of employment that will attract the young men we

He raised the point that a young man planning for marriage as well as a career is going to be interested in living conditions as well as a reasonable chance that there will be security. He doubted that some of the better educated young men of today who turn to manual and machine-tending labor go to the factories of the Middle West because they prefer these plants to a life outdoors. But he feels that the pulpwood logging operators should analyze their operations to see what can be done to attract the men they want.

"Mechanization to get the lifting out of the pulpwood business and good men to operate the equipment," is the remedy he suggested. It seems like an unbeatable combination to us.

The second representative of industry spoke in terms of the need and the value of a direct dissemination of information to the superintendents in paper mills and from them to the men about the subjects in which the management groups are interested. He feels these men should know about the problems that confront a large industry like the paper industry-legislation, trade agreements and so on.

He said it pleased him to be able to say that in tackling these problems today, the paper industry leaders do so in the interest of numerous and steady jobs and payrolls for the employes. Therefor, it is for the employes' benefit to understand and to help the programs before the industry and the problems that always will be arising in the future.

We say it is a healthy sign for an industry when leaders get together and openly express such confidence in the benefits to be gained from appealing to intelligence of employes.

True Birthplace of Paper in America

It is all well and good to be sentimental about the historic Rittenhouse mill in colonial Pennsylvania. But papermakers living north of Monterrey should avoid being provincial and distorting history to the point of perpetuating that legend about the Rittenhouse mill being the daddy of all mills in America.

For if one meets the paper industry leaders south of the Rio Grande, who incidentally are counted among Mexico's outstanding and most progressive industrialists, one learns from them that ancient Mayan tribes on Yucatan made a paper from wild fig fibers well over 1,000 years ago-perhaps 1,700 years ago. The Aztecs were almost prolific producers of paper when Cortez landed near Vera Cruz over 400 years ago.

Paper in the European manner was made at Culhuacan, Mexico, in 1575, still 115 years before the date of the Rittenhouse mill.

A handsome paper was made by Mayans and Aztecs with inner fibers of the wild fig tree, cooked in lime water and beaten on boards. The Aztecs called it the "paper tree"-amacoztic. Even today this process survives among remote tribes in Honduras and in the mountains east of Mexico City. It is also reported that a crude paper was made in ancient times from the maguey plantthe century cactus plant-which is still used for rope and cloth making but better known to tourists as the source of a potent

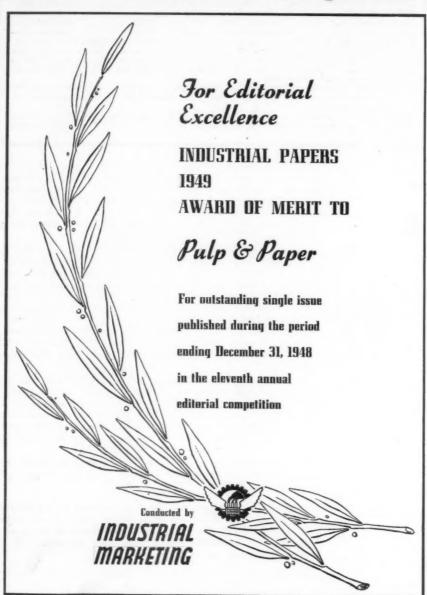
American and Canadian papermakers of good will also will wish Mexicans every success in their Herculean efforts to modernize their industry, with virtual doubling of production in the past decade. They are showing an ingenuity and aggressiveness comparable with their American ancestors who developed a crude papermaking industry centuries ago, without any help from the Chinese or Egyptians such as the Europeans had.

Papermaking progress in Mexico is just one of the things that will contribute to making all of America physically stronger and culturally healthier.

"'Baby production' continues (U. S. population up 15,000,000 in ten years) and there are other latent demands for paper and paperboard in the offing which will keep us going at a high rate of production for a long time to come."—D. C. Everest, President, Marathon Corp.

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PRIZE FOR PULP & PAPER Wins in Editorial Competition



PULP & PAPER was honored with the award for "an outstanding single issue among industrial papers" during the year 1948 at the National Industrial Advertising Association Conference in Buffalo, N. Y., on June 15.

The prize-winning issue was our 1948 North American Review Number. This is an annual 13th issue of PULP & PAPER which is recognized throughout the industry as the most complete statistical, analytical and interpretive review book published in the industry.

A special feature of the 1948 issue was a continent-wide survey conducted by field editors in U. S., Canada and Mexico, which brought together a great deal of practical information on the ways and means being employed to increase fiber supply for pulp, paper, rayon and plastics.

Also in that issue was a similar field survey of expansion and modernization in all regions of the continent, as well as the annual sections on all phases of the paper and pulp industries.

The 'award of merit certificate" is reproduced on this page.

For 12 years this annual editorial competition among industrial magazines has been conducted under sponsorship of Industrial Marketing, which is published by Advertising Publications, Inc., Chicago, also publishers of Adevrtising Age.

Presentation of the award to PULP & PAPER was made by George J. Callos, executive vice president of Klau-Van-Pieterson-Dunlap Associates of Milwaukee, featured speaker at luncheon meeting of the Buffalo conference.

Several weeks ago the 1949 North

American Review Number came off the press—a 200-page reference book, larger in size and with more complete data than any previous issue. This year's issue contains also considerable exclusive data on world-wide industry consumption and production for the first time.

Copies of the 1949 issue are available at \$2 each or with a year's subscription order of \$3 for a year or \$5 for two years. Write to PULP & PAPER, 71 Columbia Street, Seattle 4, Wash.; 370 Lexington Ave., New York 17, N. Y., or any of the other offices listed on the "masthead" on the preceding page. If you simply tear off this page, write your name and address on it, and mail it to us, we will start your subscription.

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Alaska Statehood No Threat To Pulp Industry, Says Watts

Chief Forester Lyle F. Watts has indicated to PULP & PAPER that Alaska state-hood would not in any way jeopardize the negotiations of private companies with the Forest Service for timber to supply an Alaska pulp mill.

"The relationship of the private company with the Forest Service, under the proposed Statehood bill, would be precisely the same as now," Mr. Watts said.

As this issue went to press, there still had been no contracts let for construction of the mill projected at Ward's Cove, near Ketchikan, by American Viscose Corp. and Puget Sound Pulp & Timber Co., joint participants in the new Ketchikan Pulp & Paper Co. Under the Forest Service contract, work should begin Aug. 2, but by a proper showing, this can be delayed for a year.



THIS MAP OF SOUTHEAST ALASKA shows site selected for Ketchikan Pulp & Paper Co., dissolving high alpha pulp mill at Ward's Cove, near Ketchikan. Despite the contrary published reports—work had NOT commenced on this mill up to now and neither had any contracts been let.

Meeting in Niagara Falls Draws Attendance of 500

About 500 delegates from Canada, U.S. and Britain assembled June 1 in Niagara Falls, Ont., for the summer meeting of the technical section of the Canadian Pulp & Paper Association.

The first day was devoted to papers on technological progress. On the second day delegates visited mills in the Niagara district. And on the last day, there were

group discussions.

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John Buss, the section's chairman and assistant manager of manufacturing, Provincial Paper, Ltd., Toronto, was chairman. Among papers was one by Dr. H. S. Hill and L. R. Beath, director and assistant director respectively of research, Price Brothers & Company, Ltd., Kenogami, Quebec, on electrical evaporation of waste sulfite liquor by a new process of concentrating liquor for fuel.

In group discussions delegates discussed unloading pulpwood from box-cars, treatment of paperboard for printing, the elimination of scale and lime in equipment, and operation problems. W. G. Tamblyn, assistant plant engineer, Great Lakes Paper Co., Ltd., Fort William, read a paper on flash drying of bark at his company, a process which has taken two years to de-

velop.

Container Corp. Leases Plant

Container Corp. of America announced that its wholly-owned subsidiary, California Container Corp., has leased the plant and equipment of the Columbia Paper Box Co. in Portland, Ore., The property will continue to be operated as a folding carton plant.

Gardner Board & Carton Co. Is New Name for Ohio Firm

O. E. T. GARDNER (right), President and General Manager of the present company, has been active in the concern since 1918.



Gardner Board and Carton Co. is the new name for the Middletown, O., firm which was formerly the Gardner-Richardson Co., with paper mills and paper box converting plants at Middletown and Lockland. O. E. T. Gardner, president and general manager of the present company, has been in that position since 1918. All other officers also remain the same.

In 1932 the Gardner Harvey Co. purchased the paper mill and box factories of the Richardson Co. at Lockland, Cincinnati, and the name Gardner-Richardson was then adopted. There is no longer any member of the Richardson family active in the business, and the new title was adopted to more easily identify the firm

BIGGEST PULP BUYER



The "biggest pulp buyer in the world" today is undoubtedly a Britisher, E. A. Holmes, shown in the photograph above taken by PULP & PAPER as he was relaxing between sessions of the recent First International Wood Pulp Conference of 28 nations in Montreal, sponsored by

the Food and Agricultural Organization of the United Nations.

Mr. Holmes, who has been in the international pulp business most of his adult life, would not relish such a hifalutin' title as the above, since he is a quiet and modest man, but facts are facts nevertheless.

He is the world's "biggest pulp buyer" because he is the Deputy Controller serving the British Government's Paper Control in that capacity since 1939. His duties are the responsibility for purchase of imported raw materials by the Control, the major one of which is wood pulp. In the course of these duties, he has visited North America many times.

In directing purchases of all imported pulp in Britain he is responsible for buying paper making materials totaling more than 1,500,000 tons annually, of which Canada and Newfoundland last year supplied over 200,000 tons; the United States 43,000 tons; Finland 461,000 tons, Sweden 452,000 tons and Norway 241,000 tons. In pre-war years the United Kingdom imported more than 2,000,000 tons annually, but dollar shortages and other factors have reduced the volume in recent years.

Mr. Holmes, one of the delegates from Britain to the Montreal meeting, was decorated last year with the C. B. E. (Commander of the British Empire) for his services in the Paper Control. In private affairs, he has been connected throughout his career with Price & Pierce, Ltd., pulp brokers of London and Montreal latterly as a vice president.

COMING INDUSTRY MEETINGS

National

National Tech. Ass'n. Fall Meeting— Multnomah Hotel, Portland, Ore... Sept. 12-16

Wallboard Conference (Auspices N. E. Wood Utilization Council & Harvard U.)—Cambridge, Mass.....
Sept. 16

Engineers' Conference, Statler Hotel, BostonOct. 31-Nov. 3

Allied Industries' Luncheon Club— Second Monday of month, 12 noon, Commodore Hotel, New York.

Regional

Maine-N. H. Tech. Section— Wentworth-By-The-Sea, Portsmouth, N. H.....June 17-18

Kalamazoo Valley Tech. Section (Fun Day and Golf Outing)- Gull Lake Country Club, KalamazooJune 28

Pacific Coast Paper Box Mfgers.

Assn., Arrowhead Hot Springs
Spa, Calif.June 27-29

N. Y. Canadian Div. Supt's. Ass'n.— Champlain Hotel, Bluff Point, Plattsburgh, N. Y.Sept. 8-10

Del. Valley Tech. Section— Spring Grove, Pa.....Sept. 30

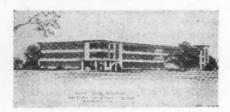
So. Eastern Div. Supt's. Ass'n.—Hotel Roanoke, Roanoke, Va...... Oct. 14-15

So. Div. Supt.'s Assn.—Frances Hotel, Monroe, La.....Oct. 24-26

Paper Industry Salesmen— Midston House, New York City— Every Monday, 12 noon to 2 p.m.

NEW MICHIGAN PAPER SCHOOL

Industry Executives See Quarters



McCRACKEN HALL (pictured above), will house new School of Pulp and Paper Technology at Western Michigan College. A 4-year course will be offered in this \$1,000,000 building. The new School is backed by the industry in Michigan.

A select group of 25 top officials of Michigan mills and others actively interested were recently taken on a tour of the newly built quarters for the new School of Pulp and Paper Technology at Western Michigan College, Kalamazoo, Mich. The group included industry advisory committeemen aiding in the establishment of the school and several committees made progress reports.

They visited McCracken Hall, the new \$1,000,000 science building, where the new 4-year pulp and paper school is to occupy the entire ground floor—2,500 sq. ft. of laboratory space—and Burnham Hall, a new dormitory. Chemistry and physics departments also are in McCracken Hall.

Dr. Wynand Wichers, acting president of the college, welcomed the group and praised the Michigan industry (there are 59 paper mills and 9 pulp mills in Michigan) for cooperation in making the school possible.

Dr. Gerald Osborn, chemistry department head, pointed out that industry is supplying all special equipment. Dr. Alfred H. Nadelman, formerly with International Paper Co., is head of the pulp and paper curriculum. This spring there were 16 freshmen and 7 sophomores enrolled and instruction will continue into junior and senior years. The new quarters will be ready in September.

O. W. Callighan, midwest representative for Edgar Bros. Co., who heads the lab equipment committee, said \$25,000 would be needed for equipment and said mill executives have suggested pro-rating this among Michigan mills on the basis of their 1948 sales. Dwight L. Stocker, president of Michigan Paper Co., of Plainwell, suggested all Michigan mills be given an opportunity to chip in. As chairman of a plant visitation committee, Mr. Stocker reported that students have already visited Detroit Sulfite Pulp & Paper Co., Allied Paper Mills, Otsego Falls Paper Co. and Hawthorne Paper Co.

Fred C. Goodwill, resident manager, St. Regis Paper Co., Kalamazoo, who heads a summer employment committee, said so far six mills agreed to employ one student each. This was about a month before school recess.

E. E. Ludwig, of Birmingham & Prosser, chairman of the industry advisory committee, presided.

Ralph A. Hayward, president, Kalamazoo Vegetable Parchment Co., who has long been a Michigan University regent, heads the scholarship committee. H. L. Bills of Saniwax Paper Co., heads publicity, and F. L. Chappell of Hercules Powder Co., the library committee.

Paper Values Lower Than Most

E. W. Tinker, executive secretary of APPA, points out that the Bureau of Labor Statistics, figures show that in general the paper index has been lower than most commodity values.

Using 1939 as an average of 100%, the June index of average value per ton for paper was, in 1940, 107.2 and the all commodity index 100.5. In 1941, for paper, 113.2; all commodities 113. In 1942, 122.9, compared with 127.9. In 1943, 126.8, compared with 134.6. In 1944 the average value per ton for paper stood at 130.7 and the all commodity price index at 135.3. In 1945, 136.5 as compared with 137.6. In 1946, 148.3, as related to 146.4. In 1947, 198.6 as related to 192.0 and in 1948, the index of average value per ton for paper stood at 208.5 and the all commodity price index at 215.6.





O. W. CALLIGHAN (left), Edgar Bros., head of Michigan school equipment committee, who said \$25,000 would be spent in equipment.

DWIGHT L. STOCKER (right), President of Michigan Paper of Plainwell, who urged that all Michigan mills be allowed to chip in. He is in charge of arranging mill visits by the new Michigan students.

Gair Subsidiary

George E. Dyke, president of Robert Gair Co., Inc., New York, has announced the incorporation of Fibre Board Container Corp., a subsidiary, which has acquired the business and assets of Fibre Board Container Company which has shipping container plants in Richmond and Martinsville, Va., which have been operated for 30 years by the Donati family. By this move Gair expands its container manufacture into a new area and one served by its Port Wentworth kraft mill.

BEN KING DUFFY has been appointed by General American Transportation Corp., as its representative to handle Plate & Welding and Process Equipment Divisions sales in its Pittsburgh district. Mr. Duffy was formerly sales engineer for the Turbo-Mixer unit of General American.

BIRGER EVERITT, former superintendent at the Anacortes, Wash., and Vancouver, Wash., sulfite mills, but now a resident of Stockholm and a salesman in Europe and Africa and Latin America for Swedish papermaking equipment, was a recent visitor in the U.S. He visited his old haunts in the state of Washington, too.





DR. EDWARD G. LOCKE, Chief, Forest Utilization Service of Forest and Range Experiment Station, Portland, Ore., (second from right above) was elected President of the Forest Products Research Society at their recent meeting in Grand Rapids, Mich. In 1950—June 25-29— they will meet in Portland. Others pictured (I. to r.): CHARLES E. VAN HAGEN, Secretary, Forest Products Research Society, Madison, Wis.; K. G. CHESLEY, Director of Research, Crossett Paper Mills, Crossett, Ark., who continues as a Board Member of the Society; JAMES F. HAMILTON, Technical Service Director, Perkins Glue Co., Lansdale, Pa., elected First Vice President; GEORGE A. GARRETT, Dean, School of Forestry, Yale, and past President of the organization; FRED W. GOTTSCHALK, Technical Director, American Lumber & Treating Co., Chicago; CARL A. RISHELL, Director of Research, Timber Engineering Co., Washington, D. C., who continues as Board Member; DR. LOCKE; and ROBERT A. COCKRELL, Assoc. Professor of Forestry, U. of California.

INSTITUTE CONFERENCE Randall Elected to Trustees



THREE OF THE PRINCIPALS in the events at the Institute meeting in Appleton, Wis. (left to right):

DR. WALTER F. HOLZER, Central Tech. Dept., Crown Zellerbach Corp., Camas, Wash., who made an address in behalf of the many alumni of the Institute now working in mills all over the continent; FRANK SENSENBRENNER, of Neenah, Wis., who was President of Kimberly-Clark Corp., an important patron of the Institute when the Institute was founded; and HERBERT T. RANDALL, of Hamilton, O., Vice President and Consulting Engineer for the Champion Paper & Fibre Co., who was elected a new member of the Board of Trustees.

Herbert T. Randall, the vice president and consulting engineer, The Champion Paper & Fibre Co., Hamilton, O., has been elected to the board of trustees of the Institute of Paper Chemistry, Appleton, Wis., according to Ernst Mahler, executive vice-president, Kimberly-Clark, who is chairman of the Institute board.

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Mr. Randall, graduate of the U. of Cincinnati, has been with Champion since 1927. He was assistant mill manager and works engineer before becoming vice president in 1939.

Some 350 of the top industry executives attended the Institute's annual meeting were told by Mr. Mahler that the greatest problem facing the American paper and pulp industry as it moves into "a highly competitive era," is a continuing supply of intelligent, properly educated, couragious young men.

"We have always believed that the education program of the institute was its most important function, he said.

Mr. Mahler noted that the keynote in the paper industry, as in other industries, during the past several years has been production.

"The emphasis is now shifting from production or quantity to performance or quality. In my judgment, this is a healthy emphasis and we may expect it to prevail for several years to come. It is necessary, however, that we all recognize that this new era, will require us to pay more attention than ever to conserva-

tion—conservation of raw materials, conservation of resources, conservation of labor. If I may use a much-abused word, 'efficiency' is again coming into its own."

Industrial research in the United States in the last 20 years has become Big Business—so big, in fact, that industry is finding it more difficult all the time to bear the costs it involves. Dr. Robert E. Wilson, chairman of the board of the Standard Oil Company of Indiana, said, in another important address.

The speaker then listed what he believes a research director should expect from management, and vice versa. He emphasized the necessity of getting an able research director and then "giving him a stack of chips and telling him to get in the game."

"After all, research is essentially a gambling proposition. You can't tell your director how to play each hand. If you've got a good man, he'll prove his worth."

Cola G. Parker, Neenah, president of Kimberly-Clark, speaking in his capacity as president of the American Paper and Pulp Association, told the gathering that American industry's determination to progress through research and education is its greatest insurance against "trends toward a managed economy and socialization of the means of production and distribution."

Speaking of recent socialist developments in England and similar trends in this country, Parker declared that "in the last analysis . . . industry must bear a large share of the blame. . . . It seems quite clear that British industry became afflicted with what might be called 'industrial hardening of the arteries'."

Other speakers included Charles H. Reese, Nekoosa Edwards Paper Co., Port Edwards, Wis., vice president of the American Pulp add Paper Mill Superintendents Association; Nathan Pusey, president of Lawrence College in Appleton, and Walter F. Holzer, of the Central Technical Dept., Crown Zellerbach Corp., Camas, Wash., who spoke for the institute's alumni.

Wisconsin Pollution Bill Moderated by State Senate

A more moderate pollution bill than even an earlier "compromise" measure was approved by the Wisconsin state senate June 2. This new bill does not basically change the state pollution laws but effects some machinery for detection and prosecution.

It doubled the governor's allotted appropriation to a total of \$85,000 and authorizes appointment of a chief executive officer and raised maximum fines for "willful violation from \$100 to \$250. Strict application of measures proposed by the Isaac Walton League would have been disastrous to the economy of the state, according to senators who voted with the majority.

Bowater Plans New Machine for Kemsley Mill

Sir Eric Bowater, president of Bowater's Newfoundland Pulp & Paper Co. and Bowater's paper manufacturing companies in the United Kingdom, announced recently that at his Kemsley, Eng., mill, where the necessary building and power are available, an entirely new four-roll newsprint machine substantially similar in design to that recently installed at Corner Brook, Newfoundland, will be installed as soon as practicable. Bowater's have formed a small company with \$125,000 capital to conduct research, development and planning work in connection with its basic enterprises.

Packaging Conference

A number of prominent paper industry leaders were active in the 18th Packaging Conference and Exposition held at Atlantic City in May, and several manufacturers starred in the exhibits.

Chairman of the packaging division's Conference Planning Council this year was J. D. Malcolmson, technical advisor for Robert Gair Co., Inc., and on his board were Frank A. Biederman, Kimberly-Clark Corp.; Neil A. Fowler, General Box Co.; Henry J. Howlett, Container Laboratories, Inc.; Richard W. Lahey, American Cyanamid; Glenn Mather, paper converting division of Continental Can Co., Inc. On the Exhibitors' Advisory Committee were Ben M. Williams, Gaylord Container, and Paul Meelfeld, The Hinde and Dauche Paper Co.

HERE'S PORTLAND PROGRAM

Noted Speakers on Technical Program

An outstanding technical and generally informative and educational program is rapidly shaping up this month for this industry's National Technical convention which will be held Sept. 11-15 at Portland, Ore., the first such meeting in Far West in nearly a decade.

A formidable array of internationally known leaders and authorities comprise a stellar list of speakers-with the program still incomplete. They include Harold S. Foley, chairman of the Canadian Pulp & Paper Association and president of Powell River Co.; Col. Alexander R. Heron, vice president of Crown Zellerbach who has a distinguished record in dealing with labor-management problems; Dr. Emil F. Heuser, sometimes called "The Mr. Cellulose" of the pulp industries; John Strange, secretary of the Institute of Paper Chemistry; L. S. Sinness, director of research in rayon for DuPont Co.; and Lawson Turcotte, president of the Pacific Coast Association of Pulp & Paper Manufacturers Association and head of Puget Sound Pulp & Timber Co.

Many hotel reservations already have been received. Requests for reservations should be directed to TAPPI convention committee, Multnomah Hotel, Portland, Ore. Requests for reservations on the special train leaving Chicago Sept. 8 with stopovers at Sun Valley and Bonneville Dam, should be addressed to John C. Pollock, General Passenger Agent, Union Pacific R.R., 1 So. La Salle St., Chicago 3. 111.

Here follows the tentative program of meetings as announced by Dr. Walter F. Holzer, Crown Z, Camas, program chairman (all sessions in Multnomah Hotel):

WED., SEPT. 14-GENERAL SESSION-9:30 a.m.

Welcoming Remarks.

President's Message—A. E. Bachmann.
 Secretary's Message—R. G. Macdonald.

4. 1949 Shibley Award for Best Coast Paper by Young Mill Employes.

The Meaning of the Award—Wm. R. Barber, tech. director, Crown Zellerbach Corp.
The Shibley Award Paper, "Separation of Dirt from Unbleached Pulp by Centrifugal Type Classifiers" — Vance Reynolds, Puget Sound Pulp and Timber Co.

5. Status of Pacific Coast Pulp and Paper Indus--Lawson Turcotte, exec. vice pres., Puget Sound Pulp and Timber Co.

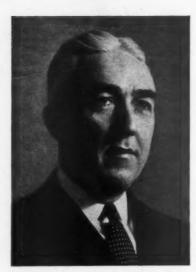
Speaker, Harold S. Foley, pres., Powell River Paper Co., chairman, Canadian Assn.

Technical Session-2:00 p.m.

1. Corrosion-Merrill Scheil, head of Metallurgical department, A. O. Smith Co., Milwaukee, Wis.

Hydraulic Barking Summary—Lee Hill, plant engineer, Pulp Div., Weyerhaeuser Timber Co., Everett, Wash.
 Paper Mill Design and Construction—J. H.

McCarthy, resident engineer, St. Regis Paper Co., Tacoma, Wash.



HAROLD S. FOLEY, Pres. of Powell River Co. and Chairman of the Canadian Association, is among a long list of outstanding speakers engaged for National Convention in Portland, Ore.

Fundamental Research:.

1. Surface Area of Fibers as Measured by Air Surface Area of Fibers as Measured by Air Permeability of Paper, J. H. Brown, Institute of Paper Chemistry, Appleton.
 Interim Report on Lignin Studies at the Univ. of Washington—J. L. McCarthy, Univ. of Washington, Seattle.
 Commercial Method of Isolating Conideration from Waste Sulfite Liguer — Homercial Conference Waste Sulfite Liguer — Homercian Conideration from Con

drin from Waste Sulfite Liquor — Homer Lackey, W. W. Moyer, W. M. Hearon, Central Research and Technical Dept., Crown Zellerbach Corp., Camas, Wash. Others to be announced.

Sulfite Pulping:

Digester Linings for Bases Other Than Cal-cium—A. S. Quinn, pres., Stebbins Engineer-

cium—A. S. Quinn, pres., Stebbins Engineering Corp., Seattle.

2. Magnesia Base Sulfite Pulping, a Progress Report—speaker to be announced; Pulp Div., Weyerhaeuser Timber Co., Longview.

3. Ammonia Base Sulfite Pulping. Speaker to be announced.

be announced.

THURS., SEPT. 15 Technical Sessions-9:30 a.m.

Pulpwoods Symposium:

Comparative studies of the chemical properties of the wood, pulping behavior, and physical and chemical properties of pulps from eastern spruce, loblolly pine, western hemlock, and Douglas fir. To be presented by the Staff of The Institute of Paper Chemistry and others.

Kraft Pulping:

 Pulping Properties of Decayed Douglas Fir— J. H. McGovern, Forest Products Laboratory, Madison, Wis.
Others to be announced.

Papermakina:

1. Consumers' Ideas on Paper Quality—Frank Abbot, Pres., Sunset-McKee Co., San Fran-

2. Semichemical Pulps in Papermaking. Speaker to be announced. Others to be announced.

LUNCHEON-12:15 p. m.

Speaker, Alexander R. Heron, Vice Pres., Crown Zellerbach Corp., San Francisco.

GENERAL SESSION-2:00 p.m.

1. Economic and Social Status of Pulp and

1. Economic and Social Status of Pulp and Paper Industry—speaker to be announced.
2. Position of Cellulose as a Chemical Raw Material—L. S. Sinness, director of research, Rayon Division, E. I. duPont de Nemours &

Solution of Research in Cellulose and Pulp Field—Emil Heuser, La Jolla, Calif.
4. Problem of Education in the Pulp and Paper

Field—John G. Strange, secretary, Institute of Paper Chemistry, Appleton.

National Convention in West Now Assured in 1952

H. Radford Russell, chairman of the Coast Superintendents, and assistant superintendent of Everett Pulp & Paper Co., has issued a formal invitation to the association to hold its National Convention in 1952 in the Far West. This formal step is taken, under association protocol, only after all preliminaries have been cleared and it generally means the convention is now officially assured.

Charles Ackley, now the third national vice president, is in line to succeed to the presidency in 1951 and therefore would be chairman at the 1952 convention. Seattle. Portland and Sun Valley are suggested sites. Mr. Ackley is paper mill superintendent at the Crown Z mill in West

There were over 800 pre-registrations for this year's convention at Atlantic City held this past month.

Plaque to Mark First Mill North of Rio Grande

(See editorial-page 25)

Commissioners of Fairmount Park, Philadelphia, have given the Superintendents Association permission to place a 24 by 36-inch bronze plaque in the park to mark the site of the William Rittenhouse mill built there in 1690. This was the first paper mill in U.S. or Canada, but is often erroneously described as the first in America, although Mexican records show a European-type mill preceded it by 115 years at Culhuacan, Mexico. First paper in America was crudely made by Mayans of Yucatan well over 1,000 years ago.

Zinkil Elected To Chicago Post

Newly elected chairman of the Chicago section of the Technical Association is George A. Zinkil, technical superintendent of Container Corp. of America's Lake Shore Plant. He succeeds Warren R. Price of Allied Research Service, in this office and will accept the gavel when the group convenes again in September. Mr. Zinkil has been with Container Corp. since 1941. He is a chemical engineer and a graduate of Iowa State College.

TOUR OF MAINE MILLS

REPORT ON DOWN EAST TRENDS

THE condition of the industry in Maine might be characterized by the answer of the Down East farmer who was asked how things were. "Things are not as good as they were," he said. "On the other hand, they ain't so bad, either."

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In June the major Maine mills were running along well on a six-day week. In comparison with many other areas, layoffs were small percentage-wise and many of them were in the woodyards rather than in the mills. For the wood supply of most Maine mills was excellent and, moreover, it was getting favorable for the plants. Prices on all species were dropping from a dollar to a dollar and a quarter a cord, peeled, at the farm lots. As to forest conditions, good rains late in May caused the governor to lift in the first week in June his ban on smoking and campfires in the Maine woods. The rains had been preceded by an unusually dry spring. And going strong throughout the state was a "Keep Maine Green" program.

Maine mill towns like Great Works

Maine mill towns like Great Works Cumberland Mills, Orono, Waterville and Rumford looked lively and optimistic. At Rumford there is a new housing project of more than 60 small homes on land donated by Oxford Paper Co., and the Harris Hotel sports a redecorated dining room as handsome as any that may be found in Manhattan or Chicago or San Francisco.

The University of Maine was making plans to revive its short summer course in pulp and paper (in 1950) under the direction of Dr. Lyle G. Jenness, head of the chemical engineering department. It was also getting under way its comparatively new Department of Industrial Cooperation whose advisory council from the industry includes Frederick H. Frost, manager of research at S. D. Warren's Cumberland Mills operations; Clifford Patch, technical director at Eastern Corp., Bangor; Edward E. Sawyer, chief chemist at Keyes Fibre Co., Waterville; William Watson, Timberlands, Inc., Dixfield; and John L. Parsons, research director at Hollingsworth & Whitney, Waterville; and

OUR COVER PICTURE

On our cover is a new air view of the S. D. Warren mill at Cumberland Mills, Maine, which has just completed a modernization program which brings this alert soda pulp and book paper mill to the topmost development in this type of paper manufacture. The program is discussed in this exclusive article.

Maine is coming to the fore in modernization leading toward greater versatility in the handling of species, in woods mechanization, in pulpwood transportation, and in industrial coordination. IN NEWS OF INDUSTRY IN MAINE (I. to r.):
GEO. OLMSTED, JR., President of S. D. Warren
Co., whose Cumberland Mills operates a high
pressure black liquor burning recovery unit
for soda pulp, a pioneering installation; W.
V. WENTWORTH, veteran Mgr. of "PCF"
which is installing Chemipulp Process and
new accumulator; and JOHN B. CALKIN, exCoordinator Research for Union Bag, who is
director of the Industrial Coop Dept. at University of Maine.





F. H. FROST (left), Research Mgr., S. D. Warren Co., Cumberland Mills, who is an advisor for new U. of Maine Industrial Cooperation Dept., and DR. L. C. JENNESS (left), who will revive summer paper course at U. of Maine in 1950.

which, it is believed, will soon include others prominent, in the Maine pulp and paper industry. Director of the university's "DIC" is John B. Calkin, consultant and recently coordinator of research for Union Bag & Paper Co.

Important things were happening in Maine's transportation industry, too, for recently Curtis Hutchins had been elected president of the Bangor and Aroostook Railroad. Mr. Hutchins is president of the Dead River Co., Bangor, and known by many industry executives through his work as director of the pulpwood production section of WPB during World War II. Mr. Hutchins has already put into effect many facets of an over-all modernization program for the famed "B&A" and the end is not yet. Also, he had recently completed, as head of Dead River a sustained yield joint timber deal with Eastern Corp. which was serving as a model for other areas in the U. S.

Mill Improvements

As for specific mills, some were going ahead with improvements while others were holding back pending political and international events. Never noted for its enthusiasm for any program which discounts the individual, Maine management is particularly cautious with regard to administration policies. Said one high executive to a PULP & PAPER editor: "You tell me what Truman is going to do and I'll tell you what I am going to do."







But plain enough were most things to those who wanted to go to Maine to see. Some were going along "as is." For example, Robert H. Robertson, president and general manager of the Old Town Co., Old Town, was going right ahead molding pie plates from pulp as this company has done for many years. Mr. Robertson felt better because of more advantageous market conditions on pulp, but he did not intend to embark on any new plans or products.

Walter V. Wentworth, one of the deans of production in the U. S. industry, said that improvements at Penebscot Chemical Fibre—affectionately known in northern Maine as "PCF" where he is mill manager)—were at the moment being confined to the installation of a Chemipulp system. Acid accumulator equipment is on the ground and going up, but other plans that PCF has in mind are going to await developments, he stated.

\$6,000,000 Program at S. D. Warren Includes Pioneering Recovery System

This magazine was the first to carry the story of the new pioneering Combustion Engineering recovery unit and boiler installation for the soda pulp process at the modern S. D. Warren mill at Cumberland Mills, and on this trip a field editor found improvements are still going on here. The mill recently completed a new finishing building in which are two new 164-inch Appleton calendering stacks. E. P. Ingalls, production manager, calls the Cumberland Mills program, which has been under way since the end of the war, "an improvement, rather than an expansion program."

The new calendar stacks and building are the most recent part of an S. D. Warren program involving more than \$6,-000,000, the chief features of which have been extensive power plant development, rebuilding of machines, additions to the paper mill, and the Combusion Engineering recovery unit which is believed to be the pioneer of its kind in the soda pulp industry. This Maine installation is one

of two (the other is at Oxford's big Rumford mill) which are the first high-pressure soda recovery units embodying the tall vertical type of furnace design. It consists of the following: high pressure chemical and heat recovery steam generating unit, back presure turbine generator, with auxiliary equipment and housing facilities. The CE boiler is the four-drum bent-tube type with water walled furnace.

What is of chief interest in the developments both at S. D. Warren and at Oxford is the fact that they embody further moderization of the soda process, and, in the case of Oxford, embarkation on a program for the sulfate process which is, of course, also a form of alkaline pulping. The vast improvements in the recovery of soda for re-use, the evaporation and concentration of the black liquor and the burning of the organics, have all meant a much more versatile use of both hardwoods and softwoods in Maine as elsewhere and it now may be called a definite trend in the Pine Tree State. A natural corollary will probably be a trend toward electronic precipitation in the recovery of soda ash. An interesting point about the design of the new units is that they can handle either soda or sulfate so that, if required, the process may go entirely to sulfate at any future time.

The S. D. Warren system handles 611,-000 pounds of dry solids per 24 hours. The pressure unit is designed for 750 pounds and there is a total steam temperature of 725. The Oxford installation is approximately identical.

Development at Pejepscot

Edgar S. Catlin, vice president and general manager of the Pejepscot Paper Co., Brunswick, expressed himself as well pleased with how they are running here. A few years ago this mill went against the general trend by returning to newsprint production for the Hearst organization and they still operate largely in that field. However, they have again widened their line of groundwood specialty papers, for schools and other purposes, and this is done chiefly on the 94-inch machine. Pejepscot's newsprint is made on 124-inch and 144-inch machines.

Early this month a possible change of ownership was being negotiated in the Maine area which aimed to transfer the well known Keyes Fibre Co., Waterville, to midwest ownership. The plant would be taken over by Shellmar Products Corp., of Chicago, whose principal mill has been at Mount Vernon, O., bu' which also operates through subsidiaries at Palmer, Mass.; and in California, Mexico and South America. Control of Keyes has for some time rested with Coffin and Burr, Inc., Boston investment firm which bought the controlling stock when New England Public Service sold its interest under the Public Utilities "break-up" act several years ago. Shellmar has been rated as a \$12,000,000 organization. It has been noted chiefly for work in the container field, while the Keyes organization produces molded pulp products, fruit and egg case packs and fibrous plastic products in a container line which would

"fill out" Shellmar's hand to a considerable extent.

Great Northern was operating merrily at its Millinockett mills farther north, in the newsprint field which has not changed so greatly this year as other branches of the industry. But south of the area of the Rangely Lakes could be seen evidences of plans held in abeyance.

For example, it is well known that Eastern Corporation at Bangor has for some time been operating two sulfite mills on the ammonia-base process and is probably the only integrated plant in the world making paper entirely from this method. At least one of their mills has been going on ammonia-base sulfite for two years. However, the waste liquor utilization program which would be a natural corrollary to the process, is in the pilot plant stage and there is no indication at this time when it may proceed beyond that.

At Rumford, the Combustion Engineering recovery unit of the Oxford mill, said to be largest operation of its type at one mill, has been going for some time. It is designed to deliver 95,000 lbs per hour.

Also full blast are the two new Rice, Barton machines which feature machine coating at high speeds by the Kimberly, Clark-Mead process. Painted as grey as a battleship, in the Fourdrinier equipment, the Oxford machine coating process is proving eminently satisfactory. Oxford customers have been assured that the machine coating at Rumford has proved itself beyond the fondest hopes.

But perhaps of greatest interest in a study of Maine trends is that the kraft process is going to be extended along the historic Androscoggin. There is a trend away from soda and sulfite, as evidenced first by the Brown Company, in New Hampshire on the same stream. And this has to mean more and wider use of hardwood species.

More than one mill man in Maine told PULP & PAPER that his mill was running "so well that we don't like to talk about it." Certainly that upshot seemed to be that Maine was running a little ahead of the national production. If as Maine goes, so goes the nation—then the pulp and paper industry looks good for the immediate future. And Maine's industry was likely to be a better barometer than her politics, perhaps, for here is the cradle of the modern technical pulp and paper industry.

Harry Weston Honored

"For excellence in advancement of industrial education," Harry E. Weston, associate secretary-treasurer of the Superintendents Association, was awarded the George Arents Pioneer Medal by Syracuse University June 4.

Trained in pulp and paper manufacture at the New York State College of Forestry, Syracuse University, where he was graduated in 1921, Mr. Weston worked for the Hinckley Fiber Co. in his native village, Hinckley, N. Y. He taught at the college six years and then followed 20 years in technical journalism, to become a widely - respected, education - minded editor.

Prices Lowered on Pulps For Third Quarter

Major North American producers of bleached sulfite pulps have lowered their prices by \$8, generally, for the third quarter.

Bleached sulfite paper pulp is quoted at \$118 a ton delivered to any eastern U. S. mills. Bleached alpha sulfite pulp is quoted at \$137 on the same basis. Major producers are mostly on the West Coast and West Coast delivery of paper pulps is \$112. All rayon and plastics manufacturers are in the East, so there is no alpha pulp sold west.

Prices of \$122 to \$128 are quoted for bleached kraft pulp, in some cases down \$14. Official Scandinavian prices are slightly above North American prices generally.

Another Report of Mill For Inland Empire

Considerable newspaper publicity has again been given to the possibility of a pulp mill being built in the Inland Empire—the Engelmann's spruce, hemlock and pine country of eastern Washington, Idaho and west Montana.

This resulted from a visit in that area by R. S. Aries, Brooklyn consulting engineer. Chamber of Commerce officials said he represents a "reputable firm" and quoted him as saying mills of not over 300 tons could be supported in three areas—west Montana; above the North Fork of the Clearwater River near the Kootenai-Couer d'Alene national forests and in the Clearwater-Salmon river area. He did not investigate any areas west of Spokane in the larger, faster-growing Sitka spruce, western hemlock and fir areas where the big market pulp mills have been built.

For over 15 years several projects for Inland Empire mills have bloomed and faded but there is considerable mature, though smaller and slower-growing wood there. Strict financing laws in Montana have made promotion difficult in that state.

New Superintendents At Atenquique Mill

Louis Rodriguez is now pulp mill superintendent and Victor Vidal is the chief chemist at the Atenquique Industrial Co., kraft mill at Atenquique, Mexico. Stanley A. Wilkes, formerly in the Southern kraft industry in the U. S., continues as general superintendent. William Bryant, another American, is carrying on as machine superintendent.

For the first couple of years all the operating posts for pulp and papermaking were held by Americans but gradually Mexicans are being trained to fill responsible posts.

Riegel's Safety Plan

The Riegel Paper Corp., with mills in New Jersey, will award "No Accident" Honor Award Pins to employes working 1, 3, 5, 10 and 25 years without a lost-time accident. These pins are very attractive and may be worn on the lapel of a coat.

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BIGGEST NEWS MILL

HOW THREE RIVERS DID IT

"Biggest newsprint mill in the world" is the honor which has been held by Canadian International Paper Co.'s Three Rivers, Quebec, mill for a number of years now. Up to now, no other mill has challenged it successfully.

How this huge brick and concrete industrial operation, with its now relatively old machines and old buildings, but with new techniques and new mechanical additions or improvements, was able to push its production to world records never known before, is an interesting story. To obtain it first hand, PULP & PAPER visited that interesting city on the St. Lawrence north shore, about midway between Montreal and Quebec.

CIP's Three Rivers mill pushed its eight 160-inch machines, four Canadianand four U. S.-made, to record production in one day of 955 tons and an average production maintained for an entire

month of 917 tons.

Not long ago, spokesmen of the Canadian Pulp & Paper Association told United States newspaper publishers nearly all the muchly-needed recent increases in newsprint production in Canada were achieved by machine improvements and "knowhow" of operators-not by installing new

L. to R.: FRED L. ALLEN, V-P in charge of all five CIP Mills; F. J. GIFFEN, Mgr. of CIP newsprint mills; CHUCK WALKER, Plant Engineer at Three Rivers. JACK WEST, Mar. at Three Rivers was away







machines. A foremost example of what they meant is the accomplishment at the CIP Three Rivers mill.

This is all the more interesting as a story now, for if this mill's output is to be surpassed this year or any time, it will only be as a result of another mill adding an entirely new and modern machine.

The Three Rivers mill deserves high praise in its own right for making more newsprint with what it had, plus some less costly additions and improvements in efficiency.

Biggest Paper City in World

The city of Three Rivers-Trois Rivieres to its predominantly French population-will still be by far and away the biggest paper-making and biggest newsprint producing city in the world, however. That's counting production of all three of its mills. As the biggest papermaking city, it noses out Savannah, Ga., and other challengers with three mills, International, Consolidated Corp. and St. Lawrence Paper Mills, with total capacity for 2,150 tons, including 1,950 tons of news.

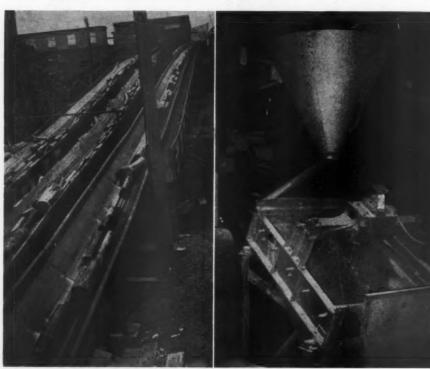
Besides its eight news machines, Canadian International's Three Rivers mill also has a 100-inch cylinder machine making board. Its record total of newsprint and paperboard production combined was 988 tons for one day and 942 for a month's daily average. The sulfite mill produces 250 tons per day and the groundwood mill has capacity for 765 tons, and generally there is an export balance of market pulp of about 70 tons.

Before the speed-up of the newsprint machines was undertaken at this mill, the average daily production was 790 tons of paper. How this was increased 127 tons without adding any papermaking equipment is the burden of this article.

Machine Improvements

Canadian-made machines were improved to the point where they reached an average speed of 1,375 ft. per minute. There are some faster machines in Canada, but not very many. At the head of each of these machines, three new Type 3A screens have replaced four old Type 2A screens on each. This has been instrumental in building up capacity.

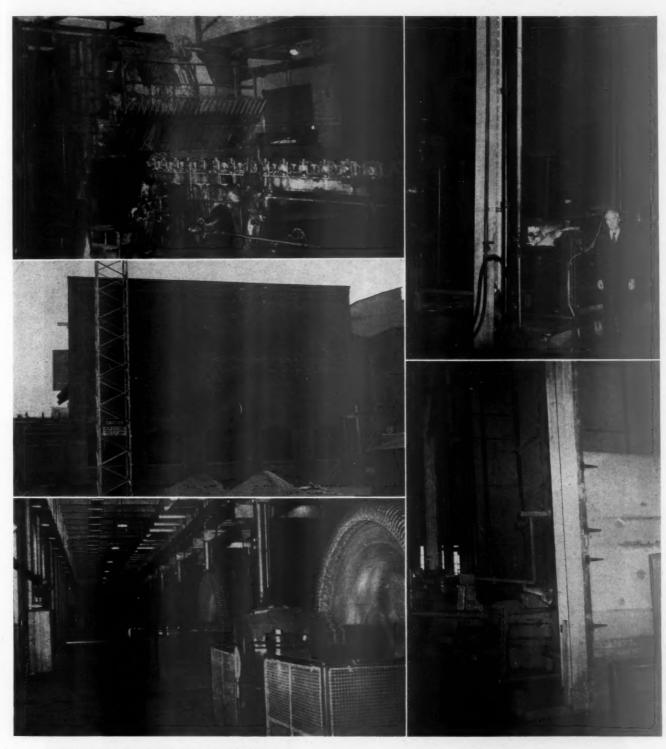
Quite a few experiments have been made in changes in conventional copperlined headboxes, but the operators told PULP & PAPER they were just about back where they started. However, a new slice, with an upper lip, easily adjustable while running, has been installed on one machine. Removable Fourdriniers, an aid to



PHOTOS AT C. I. P. THREE RIVERS MILL by PULP & PAPER:

Left: One of these three conveyors for barked wood is new. It is the one on right, entirely of steel, with 1 ½ inch cable conveyor and was designed by C.I.P. engineers.

Right: An interesting new addition is this sawdust screen which reclaims about 50% of sawdust in fiber for sulfite pulp. Saves about a cord of wood a day in this big mill.



VIEWS AT C. I. P. THREE RIVERS MILL by PULP & PAPER:

Left top: One of the high speed machines. Despite frequent headbox experiments, operators are just about back where they started conventionally.

Left middle: Exterior view of new groundwood mill.

Left bottom: Motors driving magazine type grinders.

At right, top and bottom, are views of super-hydraulic Canadian-made grinders.

speed, have been installed on two of the machines and they will also go on the other two.

Double suction boxes have been installed in the couch rolls and additional vacuum pumps have been added. In the first and second press sections, suction rolls have been rubber-covered.

There are still 47 dryers of 5-ft. diam-

eter on the machines, but additional felt dryers have been added. New Pope-type reels were installed.

All of these changes and improvements have helped in one way or another to increase production, but nevertheless the operating experience of the crews at the Three Rivers and the management must not be overlooked as perhaps the most

important factor.

Over on the other side of the mill, where the four 160-inch U. S.-made machines are running, not so much speed-up work has been done.

But there is one interesting new development there. For the first time in history anywhere in this industry, a machine has been totally enclosed with a ventilat-

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ing hood. It is the Ross-type hood and exhaust system and hood panels extending all the way to the floor around this one machine's dryer section. Sliding panels make it easy to get to any part of the machine.

Back of the paper machines there have been additions and changes, all aiming at building up capacity and the flow of stock to the machine and to savings in wood and better utilization of wood supply. We will describe these just as they were seen on a tour of the mill by PULP & PAPER.

Wood Preparation

Out on the river, two more 12 by 45-ft. drum barkers have been added, giving this mill five barkers of that type. They are of riveted stave construction and ride on trunmons, the conventional type used in the East. Two more of them not only add to production, but give capacity for handling of harder barking wood, now coming to the mill, Formerly all the wood supply came down the St. Maurice River, but now about half of it is brought in by boat from Gaspe Peninsula.

One of three conveyors for barked wood is new. Designed by Three Rivers mill engineers, it is entirely steel, supports and trough and has a 1½-inch cable conveyor. The other two are of wooden construction. One conveyor goes to the sulfite mill, another to the groundwood mill and the other to storage.

Wood for sulfite goes to two 10-knife 64-inch chippers and over four 5 x 14-ft. chip screens, and at this point, is another interesting new addition, a sawdust screen which reclaims about 50% of sawdust for sulfite. About a cord of wood a day is saved by this means. It all adds up and at least half the sawdust formerly lost is recovered. The machine vibrates a wire cloth at very high speed, separating the larger sawdust which goes along with chips to the digesters.

Pulp Making Improvements

Improvements in the digester house have been addition of instrument steam flow and pressure controls on all seven digesters. Also stainless steel bottoms for all blowpits were added.

In the new groundwood addition, four new super-hydraulic Canadian-made magazine grinders have been added. Two 4,500-h.p. synchronous motors drive the two lines of two grinders each. This



WHEN A PULP & PAPER editor was in Three Rivers, Que., one of the great papermaking cities of the world, on a recent tour, he snapped these pictures. Top left—S. E. "SID" WILLIAMS, Resident Mgr. of the St. Lawrence Paper Mills Co., Ltd., at his desk; Top right—H. J. LENTHALL, Sulfite Supt. at St. Lawrence.

Below left—TORE AHLEN, Consulting Engineer in Canada for Swedish Flakt company, with offices at Canada fron Foundries, Three Rivers, who recently won the veteran's grand slalom skiing championship at Sun Valley. Below right—LLOYD D. PUBLICOVER, Field Engineer for Canadian Stebbins, Montreal, who was checking field work in a Three Rivers mill.

makes 18 lines of grinders all told for this mill, the older ones being 11 magazine type and 5 chain type. A 3,500-h.p. motor drives each of the old lines.

The new larger high pressure type grinders produce more pulp per stone in the same space virtually as the old. They are 24 ft. high from floor to floor and are fed 4-ft. long wood.

The two 100 by 90 ft. by 20 ft. high groundwood decker chests of concrete have new Semplate linings and were divided with Semtile midfeathers. This was for the purpose of attaining a cleaner pulp and more uniform consistency.

There are 14 new fine screens installed at this mill and the entire screen room has been remodeled. Eight new combined knotter and bull screens also have been installed. These have replaced old knotters, rifflers and fine screens.

Important savings are being made with an American-made double-disc type refiner. The mill started off with two of them and now there are six in operation processing tailings into No. 1 groundwood pulp. So now there is no sewer loss of tailings and other tailings which were sold in lap form to other mills is also saved and used on the board machine. About 30 tons a day had been sold.

Two new 8 by 16-ft. white water savealls have been installed to filter and save other fiber that was formerly lost.

Just installed about a year ago is a Swedish-type 140-inch machine which is used to dry the sulfite which now goes into export for market pulp.

The Men Who Headed Program

And so, in these many ways, the CIP mill at Three Rivers has made physical improvements in its vast plant for saving of wood and for increasing output of a product still critically short in many parts of the world.

This has been carried out under the general supervision of Fred L. Allen, vice president and recently made manager of manufacturing of all of the five Canadian International mills (he formerly headed up the three newsprint mills which are at Three Rivers, Gatineau and Dalhousie, N. B.); of Wes Bennett, the chief engineer for all these mills; of F. J. Giffen, who was Mr. Allen's assistant and is now manager of the three newsprint mills; of Jack West, resident manager at Three Rivers; M. W. Semple, agent; and Chuck Walker, the plant engineer at Three Rivers.

An entirely new and modern control laboratory at Three Rivers has also been completed, much to the satisfaction of Art Edward, technical director, and his technical staff.

Swedes Visit Mills

Lars Gabrielson and Gustav Soderlund, solicitor and technical director, respectively, of Holmens Bruks Och Fabriks Aktiebolag, of Norrokoping, Sweden, paid a visit to North American mills recently. In Canada, they were interested in high-speed newsprint and inspected Powell River Co.'s new No. 8 machine. The news machines in their Swedish mill are old and slow, and replacement is contemplated.

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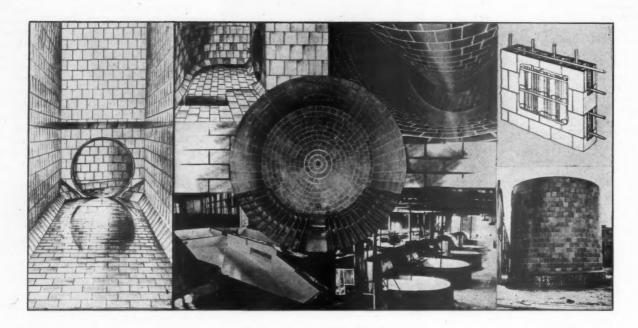
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MIDDLE WEST



FORREST H. WERLING, (left) who recently became Manager of Kimberly-Clark Corp.'s two Neenah, Wis., mills, Lakeview and Badger-Globe. He succeeds J. C. Wollwage, who has moved to the Technical Department. Mr. Werling has been with Kimberly-Clark since 1927, most of the time in creped wadding operations at Neenah and Niagara Falls, N. Y. For the past five years he has been a staff member in the office of Chief Mill Manager.

A. D. WILKINSON, (right), who has been active in Kimberly-Clark Corp.'s bookmill operations since 1928. was named Production Manager of the Kimberly, Wis., mill of the company. Since 1945, Mr. Wilkinson has served on the staff at the company headquarters in Neenah. He was previously at Kimberly over 16 years.

C. W. NELSON, an assistant vice president, was elected to the board of directors of the Kimberly-Clark Corp., filling the vacancy caused by the death of C. B. Clark. The new director came with Kimberly-Clark in 1913 and was chief engineer for many years.

F. O. KANEHL, who has been secretary and treasurer, was elected vice president of finance and treasurer for The Ohio Boxboard Co., Rittman, O. M. E. Barthen, who has been assistant secretary was elected secretary, and Mr. Kanehl was elected assistant secretary.

L. F. NELSON, president and manager of the Badger Tissue mills and a former mayor of Kaukauna, Wis., has received the Kaukauna High School Alumni association award for the man whose service to the Kaukauna school system and the community is most outstanding. Mr. Nelson has been a member of the Kaukauna school board for 20 years and a member and president of the Outagamie Normal school board for 37 years.

L. E. MURRAY, formerly of St. Regis Paper Co., Kalamazoo, Mich., has joined Munising Paper Co., Munising, Mich., as converting division manager.

DOROTHY FISCHER, a secretary at Fox River Paper Corp., Appleton, Wis., and her groom, Gordon A. Kiefer, Appleton salesman, were guests after their recent marriage in Hollywood, Calif., on the "Bride and Groom" radio show where they were presented with \$2,000 in wedding gifts and a honeymoon at Del Mar, Calif.

JOHN R. KIMBERLY, vice president of sales for Kimberly-Clark Corp., Neenah, Wis., announces appointment of LAW-RENCE STEDMAN as eastern district representative in New York City, JOHN B. CATLIN replaces Mr. Stedman as divisional sales manager of book paper, and A. G. SHARP becomes administrative assistant to the vice president. RALPH M. WATT, previously eastern district representative, was appointed sales vice president for Coosa River Newsprint Co., Coosa Pines, Ala., and W. W. CROSS was named sales manager of the newsprint company. Other K.-C. promotions: L. E. PASEK, assistant sales manager in the Kimsul division; M. W. KEYES, product engineer for Kimsul; S. L. SWEN-SON, product engineer for creped wadding, and R. A. WOLTERDING, assistant sales manager for creped wadding.

ROBERT FAEGRE has been appointed sales manager of the paper sales division of Minnesota & Ontario Paper Co., Minneapolis, Minn., ssucceeding R. O. Warner, who resigned.

FRANK KOLTER has been appointed superintendent of Standard Carton division of Sutherland Paper Co., Kalamazoo, and ROBERT DEAN was named his assistant. ED BORAM was appointed superintendent of Plant No. 5 and Ray Richards, master mechanic. Glen Graham, vice president, announced the appointments.

GEORGE W. ROSS has succeeded E. P. SCHOENTHALER, who recently resigned as general sales manager of the H. P. Smith Paper Co., Chicago. For the past 10 years, Mr. Ross has served as a district sales manager for the Munising Paper Co. specializing in retail, chain store, mail order house and department store merchandising. A graduate of the University of Michigan where he majored in paper chemistry and business administration, and a post graduate in plastics chemistry and engineering at Northwestern University, Mr. Ross has had extensive experience in paper processing. He was born in Chicago 46 years ago.

LEADING PARTIES AT SUPERINTENDENTS' Spring Meeting in Appleton, Wis., which was reported in last month's PULP & PAPER. (Left to right): Top—E. P. GLEASON, Manager of Power, Nekoosa-Edwards Paper Co., who was Chairman of meeting on Power and Maintenance. A. M. SCHMALZ, Ass't. General Supt., Thilmany Pulp & Paper Co., gave opening address.

JESSE HOLDERBY, Coordinator, Sulfite Pulp Mfg. Research League, who delivered a "Primer on Stream Pollution."

Center—Allis-Chalmers men: HAROLD L. GRUEHN; J. T. WILSON, Chief Physicist, gave stirring talk on, "Social and Economic Significance of Atomic Energy"; F. R. FORREST, Application Engineer, centrifugal pump dept.; R. S. WATSON, Engineer, who has covered Wisconsin mills for many years, and pioneered Allis-Chalmers business in this industry.

Bottom—Northwestern Supts'. Div. officers: L. S. SOBOTKY, General Supt. of Paper Mill, Marathon Corp., Rothschild, and First Vice President of the group; P. H. WEST, Pulp Mill Supt. at Thilmany and Secretary of the division; FRANK X. KREILING, Paper Mill Supt., Thilmany, and Chairman of Northwestern Div.



NEW MICHIGAN MILL

ADVANCES IN ENGINEERING

The new Angell Street mill of the Michigan Carton Co., in Battle Creek, Mich., is built around a smooth-running core, "The Angel," a 140-inch eight-cylinder board machine, which started up late in 1948. It is the world's longest papermaking machine.

The company's buildings stand smartly among the venerable and more recent industrial plants of busy Battle Creek, several of which are famous to the nation's consumers, who aren't aware that Michigan Carton makes many of the containers sitting on their household shelves and breakfast tables. The whole plant site covers 15 acres.

This new Michigan Carton mill is symbolic of the milestones that the paper industry is putting behind it with the now generally completed expansion and modernization of the post-war years.

You feel that way from the time you first view its clean architecture, and the well - engineered functional arrangement for in-flow of finished products.

There are several purposes behind the extensive planning which went into the Angel Street unit. Michigan Carton management saw, in the mid-'30's, the need to provide its longstanding customers with



NIGHT VIEW AT MICHIGAN CARTON CO., Battle Creek, Mich.

new sources of top carton products for the increasing consumer trade. And, just as important, they wanted to meet inevitably rising costs of production with an efficient operation—which means better board for the money.

OFFICIALS AT MICHIGAN CARTON. Top, I. to r.: LAWRENCE G. FELL, President; TOM W. GARDNER, Purchasing Agent; MARVIN JONES, who was Director of Purchasing and Engineering during expansion and is now Manager of another new mill being built at Springfield, O.; ROBERT G. BOHN, Plant Engineer.

Below, I. to r.: E. H. BARNES, Gen. Mill Supt.; W. J. SHAW, Mill Supt.; PAUL ENGSTROM, his Assistant; L. F. PHILIPPS, Asst. Plant Engineer; JAMES J. HARRISON, Tech. Director.



Engineering Carefully Planned

Therefore, once the die was cast in 1937 and a good site acquired, all of Michigan Carton's collective experience and ability in making and fabricating high quality board for cartons at its other mills was geared to planning and developing the new addition.

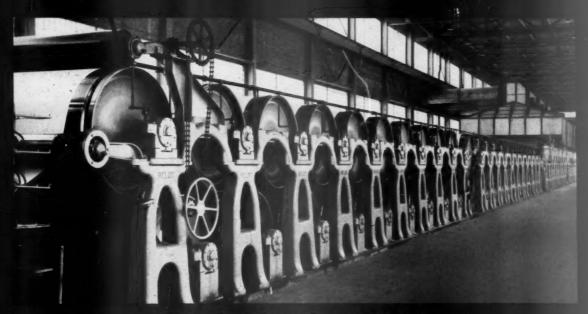
To work with they have a smoother-than-clockwork cylinder board machine that has a potential of 300 tons. Surrounding it is a stock-preparation system that can keep the machine amply supplied. And the stock chests are indicative of the foresight that entered the planning, for they can store and move 400 tons per day when at capacity. The point of this wide-margin storage is to insure whatever supply is needed during any given hour even though unforeseen vagaries of weather or mechanical failures might otherwise slow the flow of needed stock.

It well can be that in the months to come, the capacity of The Angel may be a story all in itself. Already it has been learned that the machine, with its enclosed roller bearings on the cylinders, is driven by consuming horsepower at a figure far below the engineering minimum set in the estimates by the manufacturer.

Men Who Planned It

Lawrence G. Fell is president of the Michigan Carton Co. The firm was founded in 1907 by his father, William I. Fell, Lawrence Fell grew up in the paper business and the Michigan company through successive jobs and positions at Mill One in Battle Creek.

In 1930 he became president of the



"The Angel" of Angell Street

Completion of a huge pulp and board mill expansion program by the Michigan Carton

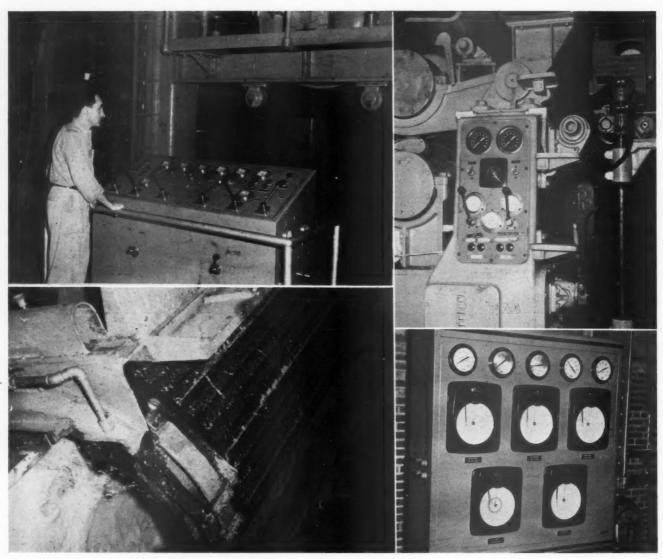
Company, Battle Creek, Michigan, was marked by the recent start-up of the new Angell Street mill.

Michigan Carton's new Beloit 140" eight-cylinder machine, "The Angel," embodies the most modern developments for the manufacture of high-quality folding box board.

BELOIT IRON WORKS, BELOIT, WISCONSIN



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VIEWS AT MICHIGAN CARTON:

Top left: Nick Pennett, Tour Boss, checks controls for calender loading on the new machine.

Top right: Harvey-Lewellen caliper measures sheet continuously. One station is for gauges and controls for maintaining correct pressures of rolls through air-loaded application.

Lower left: Bird Machine Co. oscillating shower screen.

Lower right: Foxboro recorders for dryer and calenders pressures, located in machine room on adjacent wall to machine.

firm. When the groundwork was laid for the new Angel Street plant, he entered actively into the planning and engineering and called heavily on his purchasing agent and chief engineer, Marvin C. Jones, who is now manager of another new containerboard mill being built by Weyerhaeuser at Springfield, Ore., where his experiences stands him well.

The Battle Creek officials and staff worked closely with the equipment engineers and the designing and construction firms. Key assistance was provided by such men in the mill organization as Robert G. Bohn, plant engineer; E. H. Barnes, general mill superintendent; W. J. Shaw, now superintendent at Angell Street; L. F. Philipps, assistant plant engineer, and James J. Harrison, technical director.

The Plant Layout

The physical plant is primarily one long building, with auxiliary buildings arranged and abutting at the foot and the head-end. The main building is more than 800 feet long and the main floor is one story above the ground to accommodate lines, chests and other equipment directly beneath the cylinder machine, yet still leaving the first floor at ground level.

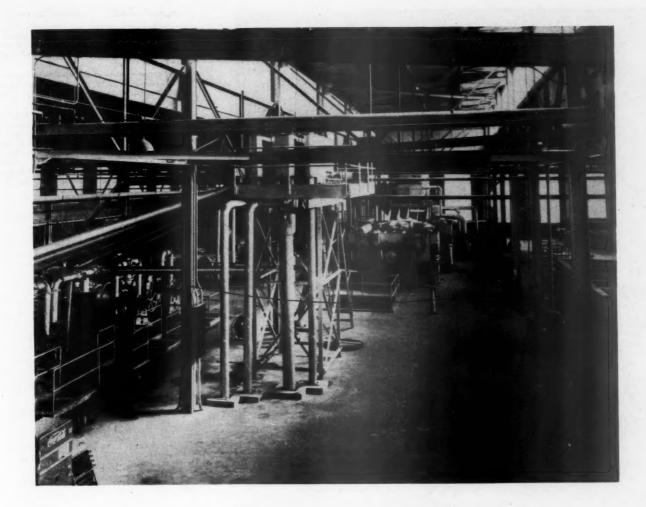
Excellent railroad and highway facilities serve the mill. Consequently, the buildings are so arranged to take full advantage of this from the receiving of the raw products to the shipping of the finished material. Railroad cars may be unloaded simultaneously and highway transports deliver and pick-up without any jamming.

There are two warehouses. At capacity

these will store a combined 24 million pounds of wood pulp and various waste paper stocks in separating bunkers and spaces. Mechanization is complete and Clark Fork-lift trucks are used to hustle the stocks in planned proportions onto the waste papers up one flight and into the stock equipment as easily and quietly as an escalator takes a shopper from floor to floor. It is a long way up to the Dilts Hydrapulpers and the inclined conveyors (built by The Jeffrey Mfg. Co. of Columbus, O.) extended more than 80 feet.

Beloit Made Great Advances

It has been said by paper mill experts that the board machine, engineered for Michigan Carton requirements, was the first to go into operation following the war demonstrating such a great ad-



One of the Very Finest

Michigan Carton wins the plaudits of the entire industry for the expertly-planned new 350-ton mill recently placed in operation at Battle Creek.

And it goes without saying that,

having furnished the entire stockpreparatory systems, Shartle and Dilts are proud to have made an important contribution to this development.

Michigan Carton—again, our sincere congratulations.

Shartle-Dilts

SHARTLE BROS. MACHINE CO., MIDDLETOWN, OHIO DILTS MACHINE WORKS, FULTON, NEW YORK

DIVISIONS OF THE BLACK-CLAWSON COMPANY, HAMILTON, OHIO

Western Saies Office: Mayer Bldg., Portland, Oregon.
Associate: ALEXANDER FLECK LIMITED, Ottawa, Canada.
Subsidiary: B-C International, Ltd., 16 Catherine Place, Victoria, London S.W. 1,



Yes! Go West! 1949 Fall Meeting TAPPI, Portland, Oregon

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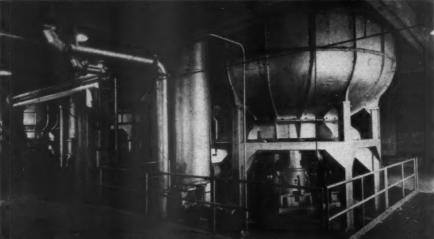
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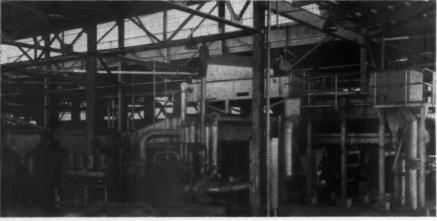
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VIEWS OF EQUIPMENT at Michigan Carton Co.:

Top: Three Jeffrey Manuf. Co. conveyors, 7 ft. by 85 ft. long. First on left feeds mixed papers to filler system. Middle one can be used on underliner, filler and liner. Third, on left, feeds Hydrapulper in liner system.

Second: Basement view of Shartle-Dilts Hydrapulpers, One in foreground is 20 ft. diameter, serving 200ton filler system. Shartle Class D5 Pump in foreground delivers stock to Grit Remover.

Third: Shartle-Dilts Filler and Liner Stock Preparatory System. Cycling chests at right; Grit Remover system, and thickeners in center background. Jerdan distributing headbox, shown at upper center, six Miami No. 5 Jordans at right, with Hydrapulpers and conveyors in left center background. Below: Complete Shartle-Dilts cleaning system. Includes Grit Remover; three Dilts Classifiers in center; Disintegrator pump, Selectrap and four Thickeners at left.

vance in the paper industry for the making of high grade board.

The machine was built by the Beloit Iron Works, Beloit, Wis. The eight-cylinder machine trims to 128 inches.

The cylinder molds are 60 inches in diameter and are driven by 15 H.P. Westinghouse DC gear motors as are the side suction drum roll, the top and bottom rolls of the suction primary press, the wringer rolls and the top and bottom first press rolls and the plain primary press roll. There are a total of sixteen (16) of these 15 HP gear motors. The main suction drum roll is driven by a 20 HP Westinghouse DC gear motor.

Each of the eight cylinder moulds and eight couch rolls is mounted on Timken NA type roller bearings. The turning rolls, wringer rolls, suction rolls, press rolls, dryers and calender rolls are mounted on SKF bearings.

The drive units for the machine are Beloit hypoid gear units using Gleason gears and driven from the roller bearing mounted lineshaft through cone pulleys and belts and equipped with Beloit patented air operated clutches. The dryer section drive units are equipped with Beloit air-operated brakes. The air clutch allows a section with enormous inertia, such as the dryer section, to be started by merely throwing a valve open. The air pressure builds up slowly enough to provide the necessary cushion for smooth starting without the dangerous possibility of overloading the driving train. The brake overcomes the inertia of the fast turning roller bearing mounted section when quick stopping is desired.

The Beloit slack take-up device is employed on the dry end belt shifters. The device is so arranged that the belt can be momentarily shifted for the purpose of taking up slack draws and then returned to its previous correct running location. That is, slack can be taken up without disturbing previous draw adjustment.

Suction press rolls and plain rolls are used in a column series. Two suction rolls topped by a plain roll with a side suction roll for extraction from the felt. Next are plain and suction presses and the sheet and felts pass through a series of main and reverse suctions and plain rolls—five suction rolls in all.

Ahead of the machine are eight screens by Bird Machine Co., South Walpole,



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PULP PAPER

Domestie Export Import Today, more than ever, intimate knowledge of tarriers conditions is of great importance. Through our savicularities and worldwide supply sources and outlets, we are in close and constant touch with the market. This estables us to give constructive assistance to mili executives in buying, selling, and exporting pulp and paper

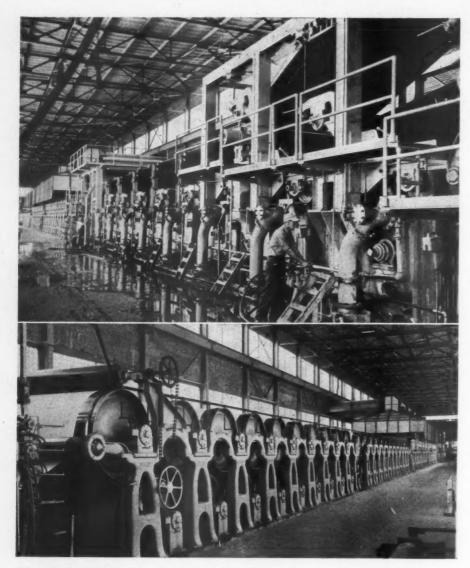
BULKLEY, DUNTON & CO., INC. - BULKLEY, DUNTON PULP CO., INC. - BULKLEY, DUNTON PAPER CO., S. B.

BULKLEY, DUNTON CELLULOSE EXPORTS, INC. - BULKLEY, DUNTON PAPER (PAR EAST) CO. INC.

In New England — CARTER, RICE & CO. CORPORATION

BULKLEY - DUNTON
ORGANIZATION
-295 MADISON AVENUE, NEW YORK 17, N.Y.





"THE ANGEL" at Michigan Carton Co., said to be world's longest machine. Views are from opposite ends of the new machine.

Mass. Each is the Bird Model 3-A with the Bird Oscillating Shower.

Harvey-Lewellen Caliper Control

What modern electronics and instruments can do when applied to specially designed machinery is demonstrated with the Harvey-Lewellen caliper control. The machine operator can tell at a glance when the thickness of the sheet is "on the beam," measured automatically to the half-point.

The caliper control also indicates when the caliper is off the specification and setting, but more than that, it automatically makes the adjustment. This is accomplished by a series of relays that cause the mechanical raising or lowering of the gate at the headbox. There is a timing device in the control series that allows each thickness from the change in adjustment in the headbox gate to have time to work its way down the machine to the caliper located near the 'smoothing rolls. Then the adjustments continue through the cycle of action and waiting until the norm is attained.

Foxboro gauges and control instruments serve the machine.

Ross Hood and Other Features

The J. O. Ross Engineering Corp. supplied the Ross hood for the vapor absorption system over two sections of the four-way dryer system. Bottom felts and top felts are used for drying. There is no hood over the two back sections, but a series of induced hot air and exhaust fans in the building remove the moisture. Exhaust from the turbines at 50 pounds pressure is also used to heat the drying rolls.

Another modern feature on this fine board machine is the Beloit engineered open-side calender stacks. This designing cuts maintenance time and allows for quick change of rolls without removing the companion rolls in the stacks. Again air-loading keeps the correct pressure on the units of the calender stacks and a central control board and levers at one station provide the tower man with means of quick, easy adjustments.

During most of the operation at Michigan Carton the sheet passes directly to

the automatic cutter built by Beloit Iron Works and layboy by Maxson Automatic Machinery Co. Two knives are balanced opposite each other on the revolving cutter bar giving highspeed action on short sheets without a corresponding high RPM of the revolving knife. This is set to one side. It is used very little as most of the production goes directly through the cutter and layboy.

Shartle-Dilts Stock Preparation

Stock preparation at Michigan Carton deserves special mention. It exemplifies as much as any department the far-reaching planning that went into this mill. Both the ground floor and the main floor are orderly and spacious for the preparing and handling of the stock. The two-level building is so arranged to provide the ultimate in arrangement as we know it today.

The Black-Clawson Co. installed its Shartle Bros.-Dilts stock system. As previously mentioned the Jeffrey conveyor system is so arranged as to cut manual labor to a minimum and to carry papers directly from the warehouse deck to the Dilts Hydrapulpers. There are three of these conveyors furnishing various mixed papers for filler, liner and underliner.

Essentially it is a four-stock system, using Hydrapulpers and Hydrafiners to do the job. Most of the stock is prepared continously, but some is prepared by batch according to the requirements of the various liners. Three sizes of Hydrapulpers are employed; 20-, 16- and 14-foot diameter units. The 14-foot Hydrapulper is also Ragger — and Junk Removerequipped so that it can be used for short runs independent of the larger units and their companion equipment.

The three Hydrafiners are all Model No. 6. Working in conjunction are six Miami No. 5 jordans.

In series with the largest Hydrapulper is an automatically controlled Ragger and Junk Remover. The Ragger is a wire rope that is slowly pulled through the mix in the 20-foot Hydrapulper. It is so equipped that it can be manually reversed. This enables the operator to make his own "start" in order to get the "junk" to clinging when a "new" wire is started.

The Shartle-Dilts system includes a Grit Remover, Dilts Classifiner and Selectrap, arranged in a "stacked" series as one unit. Stock then passes through thickeners into the jordans. The various stock chests on the ground-level floor are all equipped with Agi-Flo circulators and pumps. These range in size from No. 16-5 to 20 - 6.

The Boiler Plant

In the boiler plant, as in any modern plant today, the Michigan Carton engineers wanted economy and they are getting it. But in designing and planning, their first objective had to be plant equipment of a size and type that will furnish all the steam that is needed regardless of the peaks in production that will be reached.

The new boiler plant is an entirely separate building. The boilers were made

by the Springfield Boiler Co., of Springfield, Ill. There are two units. They are the horizontal, cross drum, water-walled type. Each can deliver 60,000 pounds of steam per hour for a sustained 24 hours and can deliver 70,000 pounds for extended peaks, if required. They are designed to operate at 420 pounds pressure, 563 deg. F. steam temp with 212 deg. feedwater.

The stokers for each boiler were built by Detroit Stoker Co., with general sales offices in Detroit. These are the Detroit RotoGrate units. A spreader type of stoker they will burn a variety of kinds of coals such as Michigan Carton will use from nearby Indiana and Illinois. The grate moves continuously forward and deposits

the ash at the front.

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Grate surfaces are 10' 1½" wide by 14' 8" between shaft centers, each has three rotors or feeders, with 1½-hp motors for the rotors and 1-hp for the grate. A complete overfire air and fly ash return system is installed and the cinders and carryover are trapped at the head of each economizer and long pipes drop them down to cinder headers back of the boilers.

Non-contaminated condensation is returned and stored in an insulated hotwell below the boilers. This retains around 212 degrees and after thorough deaerating two turbine-driven centrifugal pumps deliver it as feedwater through economizers.

Full automatic Bailey Meter Co. combustion controls maintain steam pressures, fuel-air ratios and correct drafts. The Bailey Flow-meters, gauges and controls are mounted on separate instrument panels directly facing each boiler.

The piping and stock lines were fabricated right on the job. Armco provided the pipe. The main valves for the plant for making up the line system came from several suppliers including Crane, Walworth, Hancock and Shartle Bros.

Longview Fibre Plans Third Box Plant

Ground has been broken for a new and completely modern corrugated shipping container plant at 85th and San Leandro Sts., Oakland, Calif., by Longview. Fibre Co. Total investment will be over \$500,-000.

The company has a six-acre site, and the 120,000 sq. ft. building will be ready for occupancy toward the end of the year. The new plant will use kraft container-board exclusively supplied from the company's 500-ton kraft mills at Longview, Wash.

In addition to extensive corrugated box manufacture at Longview, the company recently activated a new corrugated box plant at Los Angeles for servicing Southern California. The Oakland project will complete a program of strategically located plants on the Pacific Coast.

Omer Denny, for many years manager of sales in northern California will be Oakland plant manager. Fred H. Clewley, formerly in charge of sales in the Seattle district has been transferred to be manager of sales for northern California and Morey Williamson assumes the position of manager of sales in the Seattle territory.

SOUTH SAFETY MEET



AT SOUTHERN INDUSTRY'S SAFETY MEETING in Charleston, S. C. Photos by PULP & PAPER.

Top, I. to r.: Theo A. Cook, Res. Mgr., West Va. Pulp & Paper Co., host mill; C. C. McPike, St. Regis Paper Co., Pensacola, new '49-'50 Chairman; M. L. Hodges, West Va. P & P., retiring Chairman; D. J. Brett, National Container, Jacksonville, Sec'y-Treas.; Charles L. R. Daugherty, Union Bag & Paper Corp., Savannah.

Middle, I. to r.: William J. Kieckhefer, Asst. Supt., No. Carolina Pulp Co., Plymouth, N. C.; L. F. Thompson, recently named Asst. Mgr. of West Virginia P & P Co. mill at Charleston; C. A. Shoudy, who became Gen. Supt. at the Charleston mill; and four directors elected by the safety group: J. C. Jameson, Container Corp. of Am., Fernandina; Russell E. Bell, Crossett Paper Mills, Crossett, Ark.; Geo. H. Smith, International Paper Co., Camden, Ark.; and V. F. Underwood, Gaylord Container Corp., Bogalusa, La.

Below, I. to r.: L. J. Darby, North Carolina Pulp Co.; G. J. Bienvenu, Gaylord Container; E. B. Long, International, Moss Point, Miss.; H. B. Gaylord, North Carolina Pulp, and James H. Grove, Union Bag, a panel leader.

Members of the Southern Pulp & Paper Safety Association moved closer to solution of mutual problems and closer application of safety standards at their annual meeting at Hotel Fort Sumter, Charleston, S. C., May 7 and 8.

The meeting opened with a tour of the West Virginia Pulp & Paper Co. mill at North Charleston. The safety men were welcomed by Theo A. Cook, resident manager of the West Virginia mill. L. F. Thompson, assistant manager, addressing the luncheon on "the safety director as a salesman" urged that "we must overcome the social concept that acknowledges and accepts the existence of accidents." Safety men, he said, cannot contact everyone on a 1,200-person payroll, so must "sell" the supervisors.

A panel on safety problems in bagging plants had James H. Grove, Union Bag & Paper Corp., as leader. M. L. Hodges, acting safety director of West Virginia's North Charleston mill, took the delegates through a brief re-enactment of the supervisors' safety training course. He stressed that employes get hurt either (1) from lack of training or (2) their own improper attitude.

At the evening banquet, Dr. Douglas

B. Remsen, psychology professor, South Carolina Medical College, spoke on "Psychological Factors in Industrial Safety."

The second day started with discussion of plant practices led by V. F. Underwood (Gaylord Container), C. C. Mac-Pike (St. Regis), R. H. Aranow (West Va.), G. J. Bienvenu (Gaylord Container), E. B. Long (Int. Paper) H. B. Gaylord (N. C. Pulp), and M. L. Hodges (West Va.), chairman.

That afternoon, Dr. S. Q. James, Georgia School of Technology, discussed a suggested "Personnel Testing Institute" to be conducted at the university in cooperation with Southern mills. An institute conducted with the Southern textile industry was quite successful. It would run three days, accommodate 45, and the cost would be \$15 per day. Authorities are to confer further on details.

Awards for safety for the past year went to: National Container Corp., Big Island, Va.; Sonoco Products Co., Florida Pulp & Paper., and Armstrong Cork Co. at Pensacola, Fla.; Gaylord Container Corp., and Southern Box Co.

The 1950 meeting wil be held in Pensacola. Officers and directors elected are shown in accompanying pictures.

VICTORIA IN MAYTIME

MAY BE REPEAT



PHOTOS by PULP & PAPER at Victoria Convention:

Top (I. to r.): L. R. HARTMAN, Weyerhaeuser Timber Co. pulp division, Convention Co-Chairman; PAUL COOPER, President, Pacific Mills, and speaker at luncheon meeting; W. R. DICKIE, AIM Steel Products, Secretary-Treasurer, Technical Section, Western Branch, CPPA; HOWARD URQUHART, Powell River Co., who defined the company's new No. 8 newsprint machine; J. Venables, Crown Zellerbach Corp., Port Angeles, whose paper was on slime control; JOHN GUTHRIE, B. C. Pulp & Paper Co., new Chairman of Technical Section, Western Branch CPPA; ROBERT RILEY, Crown Zellerbach Corp., who spoke on supercalender operation at West Linn.

Below (l. to r.): ROBERT EDWARDS, Assistant Manager, Pacific Mills, Ocean Falls; JOHN ASHBY, Mill Manager, Westminster Paper Co.; R. H. R. YOUNG, Manager of Manufacturing, Pacific Mills; HENRY OSTROWSKI, Pacific Mills, retiring Chairman, Technical Section, Western Branch CPPA; LEO KELLEY, General Superintendent, B. C. Pulp and Paper Co., who was initiated by the Peddlers; MORLEY PATTERSON, Pacific Mills, who read a

Picturesque Victoria in Maytime sunshine provided an ideal setting for the first combined meeting of the Pacific Coast divisions of the American Superintendents Association and the Canadian Pulp and Paper Association's Technical Section, held at the British Columbia city's unique Empress Hotel, May 20 and 21.

More than 320 attended the meeting, regarded as so successful that it is likely to be the forerunner of similar international functions representing operating divisions of the industry on the Pacific Coast.

Apart from the technical sessions, a visit was made by delegates during the opening day to the recently modernized Sidney Roofing & Paper Co., the only one of its kind on Vancouver Island, specializing in building papers, carton and other fiber products. Hosts were Managing Director R. Logan Mayhew and General Manager J. A. Craig.

Many delegates took part in a golf tournament at the beautiful Colwood course. while women either golfed or were entertained with bridge and tea and sightseeing tours of world-famous gardens. A supper dance on the first evening; one of the most elegant cocktail parties ever held in the industry, according to widely traveled delegates; a banquet and another dance ended the convention the final night.

A bright spot was the men's "Wake 'Em Up" breakfast - first morning scheduled event of the meeting, with H. Radford Russell, assistant superintendent, Everett Pulp & Paper, and chairman of the Pacific Coast Superintendents, toastmaster. The International Brotherhood of Migratory Peddlers, W.R. No. 2, Seattle, made a surprise appearance in the guise of shipwrecked and indigent mariners. The show took the form of an initiation of Leo Kelly, general superintendent, British Columbia Pulp & Paper Co., as an honorary member of the Peddlers.

Guthrie Elected Canadian Chairman

The annual election of officers of the Superintendent's Association doesn't take place until December, but the Pacific coast branch of the Canadian technical section elected John Guthrie, B.C. Pulp & Paper Co., Woodfibre, as chairman, succeeding Henry Ostrowski, Pacific Mills, Ocean Falls, B.C. Bill Dickie, AIM Steel Division, Vancouver, was re-elected secretary-treasurer, and Don McLaurin, Powell River Co., was elected vice chair-

Co-chairman of the convention committee were Mr. Ostrowski and L. R. Hartman, Pulp Division, Weyerhaeuser Timber Co., Everett, Wash., who was also toastmaster at the main luncheon meeting. The ladies' program was in charge of Mrs. J. A. Craig and Mrs. R. L. Mayhew. In the absence of Premier Byron I. Johnson of British Columbia, who was unable to attend, the principal speech at the banquet was made by Charles E. Ackley, paper mill supt., Crown Zellerbach Corp., West Linn, Ore., and third vice-president of the American Pulp and Paper Mill Superintendents' Association.

Mr. Ackley announced plans for a National Superintendents' convention in the Far West in 1952. Seattle, Portland and Sun Valley are suggested sites.

Urges New Forest Policy

One of the principal guest speakers was Paul E. Cooper, president of Pacific Mills, Ltd., and chairman of the Western Branch, Canadian Pulp and Paper Association, who made a plea for revision of British Columbia's forest policy to conform in some respects with that of the Pacific Northwest states.

Mr. Cooper referred to the legislative changes made as a result of the official Sloan Commission's report and said it was obvious that further changes would be

necessary.

"Two years of study and trial have been given by the forest service and industry in British Columbia to lay the foundation for the development of a permanent forest

How to get new-mill production and economy from your old mills

If you need greater production efficiency and economy to maintain your profit position in today's buyers' market, here is good news.

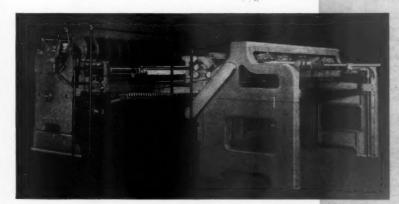
At a fraction of the cost of a new mill, Clark-Aiken can rebuild your old mill to operate with practically the same speed, efficiency and economy as a new mill and, at the same time, deliver a better product.

We can rebuild any mill, regardless of make or age and guarantee faster production, improved quality, reduced maintenance and elimination of breakdowns. As an example, production of fine rag bond was increased to 325 feet per minute by rebuilding a mill originally intended for operation at 125 feet per minute—and quality of production was greatly improved, while idle time and maintenance were radically reduced.

The entire rebuilding operation, including complete re-alignment and strengthening of parts where necessary, replacement of worn or broken parts, installation of anti-friction bearings on all shafts, new-type, high-efficiency drives and clutches and new wet-end rolls with anti-friction bearings, requires less than three weeks production shutdown.

We'll be pleased to send you complete information and details of actual savings or a Clark-Aiken paper mill engineer will call to inspect your mills and offer estimates on rebuilding costs and guaranteed economies to be obtained.

Write, phone or wire



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BIG SAVINGS IN SHEETING COSTS

The new Clark-Aiken Sustained-Accuracy Rotary Cutter and Clark-Aiken Sustained-Operation Layboy and Delivery are built for continuous single or multiple sheeting at paper travel speeds up to 700 feet per minute. Sheet length is accurately maintained and shut-downs, except for roll replacement and pile removal, are practically eliminated. As a result, production is increased 50% to 300% while broke is maintained well under ½ of 1%. Write for Cutter Bulletin 101 and Layboy Bulletin 201.



PIONEERING IN PAPER MILL MACHINERY IMPROVEMENT SINCE 1828

LEE, MASSACHUSETTS

industry," said Mr. Cooper. "Results to date are not inspiring. Washington and Oregon, dealing with precisely the same problem, have both made greater advances. They are far ahead of us. Many engaged in the forest industries of British Columbia are convinced the major advances made in permanent forestry in the United States are due to the rapid development of the tree farm movement.

"The tree farm movement got under way in the state of Washington in 1942. That was five years prior to the enactment of British Columbia's sustained yield management legislation. Therefore Washington and Oregon are at least five years ahead of British Columbia in assuring those states and their people of a sustained yield of timber and a permanent forest industry. Frankly, I believe, our forest legislation in British Columbia can be improved by embracing and employing some of the directives and methods that have contributed to the success of the movement in the U.S. From the time the tree farm movement started in the state of Washington it has spread through 23 states of the Union. Over 15,000,000 acres are now certified tree farms. I understand that Washington and Oregon have 89 units-a total of more than 3,000,000 acres.

"There is a psychological factor which in my opinion contributed largely to the success of the tree farm movement south of the border. Almost overnight it captured the public imagination. . The success of the movement is keyed to ownership, a most important condition. There is nothing unusual about that. Yet strangely enough it has been the policy of successive governments in British Co-



SNAPPED BY PULP & PAPER AT VICTORIA:

Top (l. to r.): KENNETH WYLIE, Wast Coast representative, The Bauer Brothers Co., Eugene, Ore.; VELDEN M. ANDERSON, General Superintendent, Fir-Tex Insulating Board Co., St. Helens; M. S. SMITH, Technical Director, Sidney Roofing & Paper Co., Victoria B.C., formerly with Simpson Logging Co.; J. R. DUNBAR, Columbia Mill Development Co., Vancouver; BARNEY BANNAN, Western Gear Works, Seattle; SYDNEY HANSEL, Hansel Engineering Co.

Below (I. to r.): SIDNEY COLLIER, Puget Sound Pulp and Timber Co., Bellingham, who was moderator for one of the technical sessions; HALVAR LUNDBERG, chemical engineer consultant; JAMES FRASER, Coos Bay Pulp Corp., Empire, Ore.; CHARLES ACKLEY, Crown Z, West Linn, Third Vice-President, Superintendents Association; A. C. McCORRY, St. Regis Paper Co., Third Vice-Chairman, Pacific Coast division of the association; L. D. McGLOTHLIN, Crown Zellerbach, Camas, First Vice-Chairman of the coast division.

lumbia, for more than 50 years, largely to retain forest land in the name of the King. In general, the government's policy has been to retain ownership of the land and sell only the timber.

"Many operators in our forest industries consider the land policy of our provincial government is outdated. Some say it is basically wrong. Many believe the time has arrived when its policy should be revised, at least so far as it governs forest lands. They claim outright ownership of forest lands should be permitted on a basis of the true value of the lands as they exist, in other words, like any other crop-bearing lands."

To meet the triple threat of increasing costs, decreasing demand and foreign competition Mr. Cooper prescribed improved

(Continued on page 80)

VICTORIA CONVENTION tournament was at Colwood golf course.

Top (I. to r.): Carl Fahlstrom, Asst. Mgr., Longview Fibre Co., who won men's low grass; Joe McQuaid, Mgh., Electric Steel Foundry Co., Seattle, Golf Chairman; Mike Lucas, Sales Dept., Pacific Mills, who assisted Mr. McQuade; Ray Smythe, Rice Barton and Heppenstall; LeRoy M. Shanaman, Portland, Ore., Mgr. for Penn Salt, who won men's low net honors; Harris Fenn, Jr., Coast Mgr., National Analine, had closest to No. 7; Phil and Barney Bannan, Western Gear Works; Max Wilson, U. S. Rubber.

Below (I. to r.): Erik Ekholm, Gen. Supt., Puget Sound Pulp; D. R. Baker, with Howard Simons engineering firm; Al Hooker, Hooker Electrochemical; Larry Harris, in charge of MacMillan mill construction at Nanaimo, B. C.; Pete Peterson, Hercules Powder; Pete Nordstrom, Pacific Roofing Co., Portland, Ore.; Ben Natwick, Appleton Wire, Camas; Sid Collier, Asst. Supt., Puget Sound Pulp; Walt Salmonson, Draper and Cheney Bigelow; Jack Wilcox, Process Equipment Div. Mgr., Electric Steel Foundry Co.; J. M. Fulton, Mgr., Pacific Coast Supply, and Mr. Smythe.







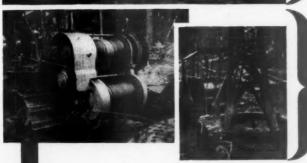
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THE CARCO JUNIOR LOG CART AND "S" WINCH TEAM makes arch logging possible for small tractors from 15 to 30 HP. For fast delivery of small loads or where logs are scattered, this midget Log Cart and 6,000-lb.-pull Winch bring in clean logs. Wheels are adjustable to two widths for any terrain.

THE CARCO STANDARD LOG CART AND "E" WINCH TEAM for tractors to 45 HP arches larger loads of small logs. If traction is poor due to rain, a Winch-Log Cart rig keeps you in the woods longer. To haul over a slick or bog, drop the load, go ahead to firm ground paying out line. Then winch up load and proceed.



A CARCO "R" HOIST equipped tractor coupled to a portable spar can go into a heavy stand or rough terrain where arching is impractical and do a quick job of cold-decking. Many loggers are now producing pulpwood profits from otherwise waste trees by prelogging with a mobile spar.

CARCO LOG CART
LOGGING PRODUCES
THREE TIMES more logs

methods TAAL YOUR TREES in a herringbone pattern, butt ends in the direction of Log Cart travel, for best production.

CARCO RIGGING is designed for tractor logging—for pulling, hoisting, skidding, and loading.—Available in a full range of hooks, sockets, ferrules, rafting dogs. THE NEW SNATCH CHOKER SYSTEM for Log Cart or high lead logging saves valuable gathering time in the woods. Pre-set chokers are "snatched" to the mainline, then logs are automatically bunched as the line is pulled in.

CARCO tractor logging equipment and methods have been developed by loggers for loggers on all types of operations. REMEMBER—THERE IS A CARCO WINCH OR HOIST FOR NEARLY EVERY CRAWLER TRACTOR EVER MADE AND AN ARCH OR LOG CART FOR EVERY TYPE OF TIMBER.

WRITE TODAY FOR ADDITIONAL PULP LOGGING INFORMATION



"The real objective of good forestry is to raise the economic level of the people."—J. M. Stauffer, Alabama State Forester.

TIMBER AGREEMENT IN MAI





CLYDE B. MORGAN (left), Preside and CURTIS M. HUTCHINS (right), President of Dead River Co., who joined in agreement for sustained yield timber harvesting in Maine. In this article, PULP & PAPER reports on first logging done under the new pact and details of agree

What William E. Eggleston, woodlands manager for Eastern Corp., Brewer, Me., calls "a semi-mechanized operation" near the headwaters of the west branch of the St. Croix, is representing the first pulpwood logging operation in the recently completed timber agreement between Eastern's management and Dead River Co., Bangor, Me.

Mr. Eggleston last month told a PULP & PAPER editor at the Eastern Corp. mill that the operations were near the town of Lakeville, approximately 75 miles from Bangor. Long logs are produced by hand-saw and trucked to the Lincoln mill where they are peeled and cut into pulpwood length. Logs are loaded into trucks by Hyster-Way equipment operated in connection with either a Caterpillar D-6 or D-7 tractor. The theme of the Eastern logging now is to obtain dry wood for next year's operation. The new deal with Dead River and the current softening of the wood market makes this feasible.

The Eastern-Dead River agreement was announced recently by Clyde B. Morgan, president of Eastern, and Curtis M. Hutchins, president of Dead River. Mr. Hutchins is also president of the famed Bangor and Aroostook Railroad, and is known to paper executives throughout the nation as wartime WPB director for pulpwood production.

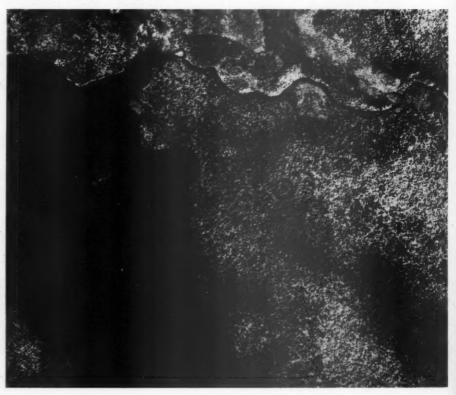
The agreement between Eastern and Dead River outlines that the latter firm will receive from Eastern a yearly license fee apart from payment for timber cut, which it agrees to re-invest in the project, in return for exclusive timber cutting rights on 100,000 acres of Dead River property. A part of the re-investment by Dead River will include construction of a 30-mile year-around trunk road system and also forest-management studies under the direction of Dwight B. Demeritt, woodlands manager for Dead River and recently head of the University of Maine forestry department and once on the faculty of the University of Pennsylvania. The agreement is for ten years,

and provides for renewal periods of ten years.

Eastern's timber holdings now comprise ownership or lease of 386,000 acres of managed timberlands in Maine and Nova Scotia, plus cutting privileges or rights on 115,000 acres-a total supply of 501,000 acres.

The lease involves roughly half of the Dead River holdings. Mr. Demeritt gave this magazine's readers a good idea of the reforestation powers of the holdings by citing figures on a typical parcel of land. This parcel of 5,000 acres was cruised in 1930 and showed 12,000 cords available. Since that year it produced 10,000 cords. Cruised again in 1948 it

VERTICAL AERIAL PHOTO showing heavy timber, lakes and general character of the forest in the Eastern Corp.—Dead River agreement in Maine region visited by PULP & PAPER. The dark areas are softwood timber and the light areas are hardwood timber.





July, 1949

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showed 13,000 cords available! Species involved were spruce, fir and hemlock and, in addition to the sulfite pulpwood, railroad ties and other materials accrued.

Nevertheless, in connection with the Eastern lease, it will be a part of Dead River's program to concentrate forestry work on growth studies, setting out permanent sample plots. Of equal importance will be development of further fire protection.

Interesting developments in Eastern's woodlands operations include new semiportable camps which are erected in 12foot sections and may be transported knocked down. Not only are the camps portable, but they represent a great improvement in living quarters over the old type, according to Mr. Eggleston. And while hand-saws are primarily used in the present Eastern operations they will aid any individual worker in the purchase of a power saw if he will purchase some equity in the saw and agree to cut for Eastern. In this way, says Eastern, workers give their equipment suitable maintenance and repair and the company avoids high inventory of this type of



- MEETINGS -

Conference on Conservation and Utilization of Resources (includes forests, land and water) United Nations, Lake Success, N. Y....... August 17-Sept. 1

Society of American Foresters (Annual Meeting) — Olympic Hotel, Seattle, Wash.Oct. 10-14

BEHAVIOR AND CONTROL of understory hardwoods in loblolly pine stands is covered by Technical Note No. 72, prepared by L. E. Chaiken and issued by I. T. Haig, director of the (U. S.) Southeastern Forest Experiment Station, Asheville, N. C.

STORY OF SITKA SPRUCE Quality Wood for Pulp

Where did Picea Sitchansis (Sitka Spruce) get its name?

Why from Sitka, of course.

And why was the name of Sitka applied to this spruce which grows all the way along the coast from Alaska through Oregon?

Because the Russians at Sitka nearly 150 years ago started cutting spruce lumber and shipping it to the Spaniards and Mexicans in California. The Mexicans and Spaniards called the lumber the spruce from Sitka, and such it has been since.

Americans? They were not yet established on the Pacific when the Russians started sawing spruce lumber at Sitka. The Columbia Lumber Co. of Alaska today is sawing Sitka Spruce in Sitka, according to a PULP & PAPER editor who recently visited there. One corner of the mill yard covers the space where Alexander Baranof, the lord of Alaska, had his sawmill. It was run by water power brought by flume from Swan Lake, just above the town.

A little distance away Baranof's Castle—a big wooden house built of spruce in 1804—looks down on the site. The modern sawmill is the third on the site.

Just around a southerly point of land three miles from Sitka and the sawmill is the proposed site for a dissolving sulfite pulp mill, and a perpetual pulpwood area to support a mill has been set aside here by the Forest Service. Overtures for this mill by promoters have been proceeding, and various studies have been made. Close observers believe the Sitka mill would follow close upon the proposed Ketchikan mill. Construction of the latter

mill has been put off and under terms of the Forest Service timber sale agreement the beginning of construction can be legally delayed until Aug. 2, 1950.

Maine Mills Building Up Their Wood Inventories

Trending down to Maine as this issue went to press, PULP & PAPER saw evidences everywhere of wood inventories building above the horizons. Some mill yards had wood for many months ahead, and the relatively small lay-offs in northern Maine mills were in the yards. At least one big company was proceeding with logging at a pace leisurely enough to be thinking in terms of completely dry wood for 1950 operations. One large pulpwood company was carrying on little or no logging operations of its own, but dealing wholly as a pulpwood broker.

In Bangor, new prices reflected the wood situation. Prices had dropped from a dollar to a dollar-and-a-half at the farmers' wood lot. Spruce was down a dollar from \$18.00; "poppel" down a dollar from \$15.75; hardwood down a dollar from \$17.25; hemlock down a dollar and a dollar and a quarter from \$16.75; and pine down one-fifty from \$16.25. These were peeled wood prices.

Foresters' Meeting

The Society of American Foresters will hold a national convention in the Olympic Hotel, Seattle, Wash., Oct. 10-14. Clyde S. Martin, Weyerhaeuser Timber Co., will preside as society president.

There will be field trips to Coast log-

There will be field trips to Coast logging operations and the theme will be "full crop production of forests." Equipment Safety Schools Draw 400 in New England

A series of Truck and Tractor Schools in Preventive Maintenance and Safety has recently been completed by the American Pulpwood Association, according to H. E. Brinckerhoff, executive secretary, headquarters, 220 East 42nd St., New York.

These schools or conferences for the pulpwood producing industry were conducted by H. H. Jefferson, training officer for the APA, on operations of the S. D. Warren Co. at Bingham, Me.; the St. Regis Paper Co., at Bucksport, Me., and Brown Co., Berlin, N. H.

At Bingham and Bucksport, Maine, state police assisted an on-the-highway safety program, followed by on-the-job safety by company safety engineers. Tractor, truck, and tire manufacturer representatives showed safe and economical equipment.

At Berlin a four-day training school was attended by 65 truck owners and drivers. Approximately 400 men attended the three schools.

Thew Shovel Co. Celebrates 50th Anniversary

The Thew Shovel Co., Lorain, O., celebrates its 50th anniversary as a corporation on July 17.

Thew's actual history began 4 years earlier, in 1895, when Capt. Richard P. Thew designed and built the first full revolving shovel. Thew, captain of an orecarrying lake boat, became interested in the 1890's in the difficult problem of handling iron ore once it was deposited on the docks. At that time such work was done with "railroad type" shovels which traveled on railroad tracks, could work over one end only. Captain Thew conceived the idea that a shovel that was full revolving, that is, could dig or load in any position of a 360° circle, and had a horizontal, crowding motion, would solve many of the ore-handling problems. New uses brought new requirements and lead to Thew's development of the first singlemotor electric shovel in 1903 and one of the earliest gasoline powered shovels in

Dr. Schrader Named

The Forest Products Commission of the state of Washington has announced appointment of Dr. O. Harry Schrader, Jr. as technical director. Dr. Schrader, an associate professor of forest products at the College of Forestry, University of Washington, will continue in that position part-time. He will maintain offices on the university campus. The Institute was established by the 1947 Legislature to develop a program of forest products research.

HUGH J. HODGINS, for the past five years forester for Pacific Mills, Ltd., and its logging subsidiaries, has resigned to operate his own consulting forestry and timber management office in Vancouver, B. C. He will continue his relationship with the company on a consulting basis ice several years.

A graduate of the University of B. C., Mr. Hodgins was with the B. C. Forest Serv-



A Glutton for Punishment, powered by a diesel engine with matchless lugging ability and stamina-this is the tractor for you to use on heavy, back-breaking jobs. The International Crawler, with broad-gauge stability, balance and geared-to-theground traction, is the worker you need. Its powerful engine

takes tough work in stride, with increased torque for heavier lugging when the load demands it. Allweather starting, advanced-design combustion, full pressure lubrication and other features make it your obvious choice among tractors! Your International Industrial Power Distributor can supply the right size with matched equipment, now.

> INTERNATIONAL HARVESTER COMPANY Chicago

CRAWLER TRACTORS WHEEL TRACTORS DIESEL ENGINES POWER UNITS



July, 1949

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MEXICAN UTILIZATION PROGRAM

Chihuahua Pulp Mill Plan Revived

An ambitious thoroughgoing program aimed to protect forests from fire, promote the growing of trees and establish better utilization of wood, has been undertaken by the Union De Madereros De Chihuahua, Mexico.

This is a most interesting project because this "Union of Lumbermen of Chihuahua" as the name is translated, has just recently revived talk of a pulp mill in that timber-rich northwestern province. They want to build a pulp and paper mill with initial investment of 4,000,000 pesos.

Most Mexican authorities interviewed on a tour of that country by PULP & PAPER agree that the forest areas of Chihuahua, along with those of Durango, are the most suitable softwood areas for commercial wood products in all of Mexico. There is much more softwood in these provinces than in Mexico and Michoachan states, which are now the biggest suppliers for Mexican pulp mills. The hitch has been in the reported lack of water supply at the most desirable pulp mill sites in Chihuahua.

Sam Rosoff, the famous subway builder of New York City, in partnership with Eloy Vallina, a Chihuahua banker, and Jose de la Mora, a textile industrialist, made extensive studies only recently for pulp and plywood mills at Metachic on the Papagochic River, just south of Temosachic and 100 miles west of Chihuahua. It would have good railroad service northward and southward. The idea was shelved because of lack of water.

This group owned the Mexico Northwestern Railroad which would have served the mills, but since have sold the road to the government for \$17,000,000.

With better communication, new roads, etc., suitable sites for pulp mills in Chihuahua may become available. One thing sure is the Lumbermen's Union are going to keep after a pulp industry.

There is just one paper mill in Chihuahua—it makes paperboard and bags in Chihuahua City—but there are no pulp mills in the entire state.

The forested area of the state of Chihuahua embraces nearly 7,000,000 acres in the western part of the state on both slopes of the Sierra Madra range. The principle coniferous species are, Pinus ponderosa arizonica, Pinus leiophylla, Pinus strobiformis, Pinus ponderosa macrophylla.

Stands in virgin areas are characterized by mature and over-ripe mature trees. Climatic conditions are very similar to the Pine-Douglas fir region of New Mexico and Arizona. Terrain is rough in most of the area now being worked.

In February, 1948, Joe F. Finnegan, an American, was engaged as forester to carry out the forest utilization program. He spends three weeks out of a month in the woods inspecting sawmills, and nurseries. Mr. Finnegan graduated from the



Top—Joe Finnegan, forester, Union De Madereros De Chihuahua. Bottom—Al Kent and Ing Bueno inspecting short clears and moulding stock cut from edgings at Ochenta Chih, Cia Maderas De Chih. They may some day use edgings for pulp as well as virgin wood.

University of Minnesota in 1940. Spent a year before the war logging in Wisconsin. Joined U. S. Army in 1941; served until February, 1946. His home is in El Paso, Texas, with offices in Chihuahua City.

The program undertaken by the Union de Madereros De Chihuahua has three major objectives. Mr. Finnegan has supplied PULP & PAPER the following details regarding the program:

"1. Conservation of the forest by the prevention of forest fires and the suppression of forest fires.

The members of the Union, which includes every producer of forest products in the state, have organized fire suppression units at each of their producing units in the woods. By-laws of the Union require that once a fire has been reported to a person of authority at such a unit, the suppression unit will immediately move out to the fire area and make every effort to bring it under control. Fires are also reported to the Federal Forester of the

region who is the responsible person in the eyes of the existing legislation.

All installations, such as mills, planers, drying yards and similar layouts, are inspected before the fire season to make sure that the recommendation of the Union are being complied with. Infractions of the rules are called to the attention of the manager as well as the owner with the suggestion that they be corrected at once.

Biggest problem in this connection at present is the superstition of the Tarahunara Indians who have extensive holdings in the southwestern part of the state. It is their belief that rain-bearing clouds are attracted by other clouds. In the months of April, May and June the sky is naturally devoid of clouds so the Tarahumaras take matters into their own hands and set a great number of woods fires so as to produce the smoke clouds which they hope will decoy a few rainclouds to the area. The aid of the Mexican equivalent of the Indian Service claims to have pointed out the fallacy of such fires but the Indians still set hundreds of them each year.

In 1948 the first organized forest fire prevention program was undertaken. It was the first of its kind in the Republic of Mexico. The sponsoring organization, the Union de Madereros de Chihuahua, undertook the program as one phase of their conservation program. The materials used to publicize the idea were almost entirely taken from the United States Forest Service and the American Forest Products Industries, Inc. Clint Davis of the USFS and Chapin Collins of the AFPI furnished copy, mats, reproduction negatives and sticker designs which could easily be utilized by merely substituting Spanish slogans for the English.

Several hundred thousand posters were circulated in the woods camps, lumber-towns, on trains and buses and in places frequented by the general public.

A full-time publicity agent was engaged for two months during which time he handled all releases and articles used by the daily papers and magazines together with the radio announcements and short programs.

The program was a success, people are talking about fire prevention, its importance to the community and the conservation of a vital natural resource. The latter is of great importance for the federal government is making the public conscious of the importance of natural resources. Those who have taken an active part in this program are full of enthusiasm and plans for '49.

"2. Conservation of the forest through a program of forest products utilization.

The Mexican industries are working for better utilization of the logs reaching

MCCULLOCHS SHOW SPEED At Vail Tree Farm

If you want to see some high-speed felling and bucking, watch Weyerhaeuser sawyers Canady and Smith use one of the company's McCullochs at Vail Tree Farm!





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UNDERCUTTING Like many northwest loggers, Canady and Smith notch with two parallel cuts, and knock out the undercut with an axe.



FALLING This one's almost ready. Note the dense underbrush-light-weight McCullochs are mighty handy in this kind of country.



NEXT! Easy carrying is a big factor in log production. Before you cut it, you have



UNDERBUCKING prevents pinching, no matter how the log lays. But it takes muscle, even with the light, fast-cutting McCulloch.

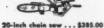


BUCKING No need to worry about tilting a McCulloch. It runs at full efficiency in any position; saves time and trouble for loggers.



TOP-NOTCH LOGGERS Bull Buck Kanoff. and sawyers Canady and Smith pose with a five foot snag just dropped by a McCulloch.

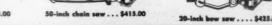
6 MODELS AVAILABLE













McCULLOCH MOTORS CORPORATION 6101 West Century Boulevard, Los Angeles 45, California

July, 1949

the mill. Heretofore edgings and slabs were burned or dumped in streams to get rid of them. But now they are being used to make broom handle squares, etc.

With the introduction of more highspeed specialized saws and edgers the utilization program should be well established in all mills by the middle of 1949.

"3. Establishment of three forest tree nurseries for the production of planting stock to be used in restocking burnt-over and impossible natural restocking areas or sites.

The Union has established three nurseries; one each in following zones: San Juanito in the southern part of the state, Madera in the central and Nuevas Casas Grandes in the northern. They vary in size from seven to ten acres and are located in the mountains in the area in which the stock will be planted.

The nursery sites were chosen for their supply of year around water which is a problem in Chihuahua. All of them are on land which has been previously farmed and therefore an intensive program of using green manure crops is underway to bring the soil back to normalcy. Soy beans are being used this year on all of the ground which is not planted to seedlings.

This year 80 pounds of Pinus Ponderosa var. scopulorm was planted between the three nurseries. The catch has been good despite the attack of rodents and birds at the San Juanito nursery. By constructing wire covers the nurseryman saved his crop which is now doing very nicely.

A graduate of the University of Mexico horticultural school is in charge of the work at the three nurseries. Headquarters at Madera from where he is only a day's journey by truck from San Juanito and Nuevas Casas Grandes. After another year in the seedbeds this year's planting will be transplanted into the transplant sections of the nurseries and will be ready for field planting in '51. They expect to produce between four and five million field planting stock each year.

At present the entire cost of the nursery operation is borne by the Union.

Planting program is to be drawn up by a federal board appointed for that purpose and which will determine the areas to be planted and in which order. The major portion of the planting will take place in areas cleared by bush farmers who have moved out after exhausting the soil. Burnt over areas are not exceptionally large because of nature the the population distribution pattern. There is no need for artificial reforestation in Chihuahua if the settlers are controlled and their livestock is kept in the natural savannahs and meadows which border most of the mountain streams.

At present time there are 12 forestry graduates of the University of Mexico working in the state of Chihuahua.

The planting was under personal direction of Mario Gonzalez-M, president of the firm Asseraderos Gongalez-Ugarte y Hijos. Later General Antonia A. Guerrero, a lumberman with extensive holdings, took over the reforestation program at the request of Sylvestre Aguilar, chief of the Mexican Federal Department of Forestry, leaving Sr. Gonzalez-M free to devote more of his time to the problems of forest fire prevention and the utilization of milling wastes.

Pulpwood Machines Data

In recent months the American Pulpwood Association, 220 West 42d Street, New York City, has issued through W. S. Bromley, forest engineer, data on a one-man drag saw, an all-wheel drive tractor, pallet loading, dock approaches, self-loading trucks, truck hoists, and tilt-top trailers.

FOREST DATA FOR THE OZARK region of Arkansas is available in a report issued by the Southern Forest Experiment Station, New Orleans, of which Chas. A. Connaughton is director. The report is a "progress" document prepared by William A. Duerr on the Southern Forest Survey.

ONE MILLION PINE SEEDLINGS will be produced this year by Union Bag & Paper Corp., in its new Sapelo, Ga., nursery. The nursery is 45 miles south of Savannah. T. B. Dalby is in charge.



SCENES IN CHIHUAHUA, where pulp
mill is contemplated:

1. A fine stand of
natural reproduction
at San Juanito. This
was a good site
logged in 1910-1915.
Needs thinning. 2.
Fine reproduction if
fire is kept out.
This area was logged
in 1941 near Los
Ramas San Juanito.
3. Forester Trevino
and Supt. Prieto, El
Largo, Chih inspecting natural reproduction
on an area
logged in 1942. 4.
See beds at San
Juanito nursery.



No work-no eat!

If your pulpwood handling is now at the mercy of an old style steam crane, you'll find that the machine is doing a lot of eating when it should be working.

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Now—compare that with a new AMERICAN DIESEL, of the type shown here, in the yard of Consolidated Water Power & Paper Co. As to speed, smoothness and general efficiency, it outperforms the old steam cranes sensationally. It needs only one man. Its fuel cost is about one-tenth that of a steamer. When it stops work, all costs stop. It works tirelessly, week in, week out, without major servicing.

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PACIFIC COAST



HAROLD AHLSKOG, whose appointment as Gen. Mgr., Woodfiber Div., Simpson Logging Co., Shelton, Wash., was announced in recent issue. He succeeded his father-in-law, C. J. Macke, Vice. Pres., who retires end of year.

FRANK H. WHEELOCK has been promoted to be assistant resident manager of Fibreboard Products, Inc., Vernon, Los Angeles mill, under Resident Manager Harvey Brown. Mr. Wheelock, former chairman, PASC, has served for many years as board mill manager and continues to handle that job in addition to his new duties.

LAWRENCE J. MILLER, winner of the PASC Cunningham Award for 1949, has been made superintendent of the granuale plant at Pioneer Flintkote's Los Angeles mill. He had been in charge of the beater room for some years.

LEO ZIEL, resident manager of the Crown Zellerbach kraft mill at Port Townsend, is so busy he hasn't had time to finish his summer cottage on beautiful Point Beckett, Olympic Peninsula, even though he has had a lot of helpers including JACK HANNY, vice president in charge of CZ operations.

H. V. (JACK) MORRIS, office manager of the Fibreboard mill at Port Angeles, has been seriously ill at his home for some time, preventing activities at the mill.

LLOYD F. WRAY, sales manager in Seattle for Simonds Saw & Steel Co., with headquarters at 1741 First Ave. So., is now in his 43rd year with that company—quite a record.

HARRY BINZER, a Washington state senator and secretary of the Puget Sound Pulp and Timber Co., was feted on his return from the legislature by members of the Young Republican Club of Whatcom County at a banquet in Bellingham.

ARTHUR J. KANE, Westinghouse sales and service representative in the Southern California papermaking field, was reported as expecting an addition to his family, according to rumors circulating at the May PASC meeting in Los Angeles.

ROBERT W. STEVENS, manager, Angelus Paper Box Co., Los Angeles, recently returned from a visit to his "old stamping ground," Strausburg, Penn., visiting his old friends in the paper mills there. He then went on to New Haven, Conn. Mr. Stevens has leased a home at Lake Sherwood, Southern California, for the summer. "Bass fishing's good there," reports Bob. "All paper men welcome to enjoy it."



OSCAR C. CORDES (left), Vice Pres. and Sales Mgr., Dewningtown Mfg. Co., Downingtown, Pa., and JOHN V. ROSLUND (right), Pacific Coast representative for Downingtown, who made a Pacific Coast tour together this spring. It was Mr. Cordes' third trip to the Far West where closer wood utilization programs have resulted in installations of special Downingtown machines for wallboard manufacture. His first trip was in 1937.

MALCOLM OTIS, now in his second year as resident manager of the busy newsprint mill of Crown Zellerbach Corp. at Port Angeles, was recently elected a director of the P. A. Chamber of Commerce.

HARRY BUKOWSKY, plant engineer, Crown Zellerbach Corp., Port Townsend, Wash., and his wife picked up a new car in Detroit and then picked up their daughter, Marilyn, at Eastman School of Music in Rochester, N. Y., and a neighbor girl friend at Stephens College in Missouri for the drive homeward.

JESSE BONNAR, chief engineer of the Fibreboard mill at Port Angeles, who has never missed the opening of salmon fishing at nearby Sekiu in a score of years, and JERRY GREEN, mill chemist, who was born near there, lost their way to Sekiu—of all things—this year.

MYRON SCOTT, veteran office executive for Rayonier Inc., Port Angeles, took his family for a vacation trip to Atom-town, Richland, Wash.

CARL E. BRAUN, vice president and manager of Publishers Paper Co., Oregon City, and Mrs. Braun had their vacation on Vancouver Island, and as it coincided with the Victoria convention, he was on hand to greet boat arrivals with his movie camera.

EVAN WOOD, personnel and safety supervisor of the Weyerhaeuser pulp mill in Everett, Wash., has been receiving some ribbing for his "defeats" in friendly tussles with his lovely daughter, Sally. Last winter, Evan came off with sprained ankle—recently it was an injured hand, but he's recovering nicely and Sally promises to be easier on him hereafter.

SIDNEY COLLIER, assistant superintendent of the Puget Sound Pulp and Timber Co., is the newest member of the Bellingham Public Library Board. The five-member board is building a new \$700,000 library.

ROBERT HOLCOLM, sulfite superintendent, Fibreboard Products Inc., Port Angeles, was on a 6,000-mile 12-day automobile trip, taking his father to Louisville, Ky., when the seventh addition to Bob's family—Erin Wynette—was born this year.



URBAN GRANDAW (left) has become Acting Superintendent of new Multiwall Bag Plant at Port Townsend, Wash., kraft mill of Crown Zellerbach Corp., responsible to Leo Ziel, Resident Mgr. Mr. Grandaw, native of Oconto, Wis., helped start up the first bag machine at Townsend 14 years ago and for years before that he traveled for Potdevin Machine Co., Brooklyn, starting up grocery bag plants.

WILLIAM MAXWELL (right) is Asst. Supt. of the Port Townsend Multiwall Bag Plant. A graduate chemist of the U. of Washington in 1941, lieutenant in the Navy during war, and later graduate student at U. of W., he joined Crown Z last August.

VERN TRAUGBER, veteran employe with L. A. Paper Box Company, Los Angeles, died suddenly at his home May 5. He had been head accountant and credit manager with this concern for many years.

ROBERT A. BAUM, technical representative for Bulkley, Dunton Pulp Co., on the Pacific Coast, has moved into offices in the Security Bldg., Pasadena, Calif.

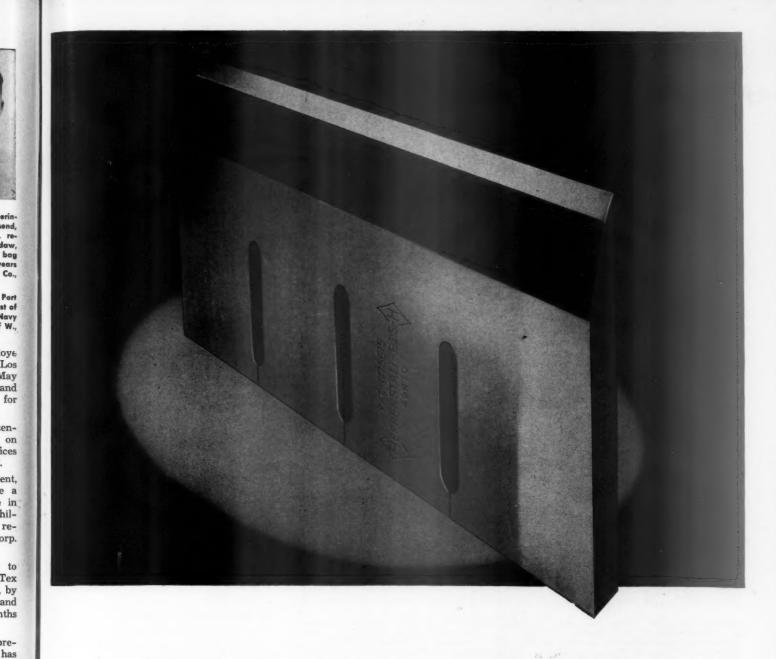
ROBERT BELL, pulp mill superintendent, Rayonier Inc., Shelton, Wash., made a summer motor trip to his old home in Neenah, Wis., with his wife and two children. Mr. Bell's father was recently retired on pension by Kimberly-Clark Corp. at Neenah.

L. V. FRISCH has been advanced to position of general manager at Fir-Tex Insulating Board Co., St. Helens, Ore., by a meeting of the board of directors and stockholders. For the past few months Mr. Frisch had title of mill manager.

VERN BASOM, resident manager, Fibreboard Products Inc., Port Angeles, has finished his term as Elks Grand Exalted Ruler there but is now chairman of the board of the P. A. golf club. He injured his nose (not seriously, we are glad to say) in a fall at his home early one morning while hurrying for a team match between P. A. and Bremerton and couldn't play.

W. R. BARBER, technical director of Crown-Zellerbach Corp., Camas, Wash., and Mrs. Barber became grandparents May 20 with the birth of a daughter to Robert F. Barber, mechanical engineer at Richmond, Calif., Standard Oil Coplant. The young miss is named Katherine May Barber.

HERMAN SIMPSON, former mill manager in U. S. and Canada, now vice president with Cellulose Engineers, Seattle, has been appointed advisor to the Industrial Research Division of Laucks Laboratories, Inc., Seattle. DR. H. K. BENSON, retired head of chemistry and chemical engineering at the University of Washington, is director of this division.



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By manufacturing the *first* solid alloy steel chipper knife, Heppenstall revolutionized the entire industry. For under the most severe service conditions, the solid alloy steel knife proved superior to all others because it retained keen edges *longer*... operated *more* hours between grinds... yielded more uniform chips with less sawdust waste.

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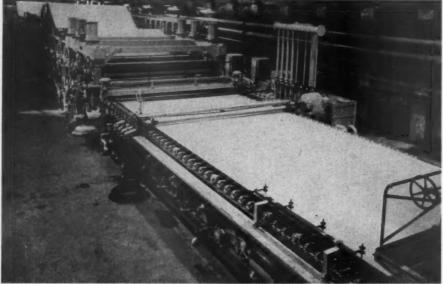
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M & O MACHINE VIEWS





EQUIPMENT FOR INTERNATIONAL FALLS, Minn., mill of M & O Paper Co. At top is rebuilt and modernized No. 4 Pusey & Jones Fourdrinier Machine with Reliance drive, which was described in our June issue. Below is Valley Iron Works stainless steel headbox and stock entrance equipment built especially for this No. 4 Machine, designed to handle flows up to 1200 fpm. This unit stands 7 ft. above wire and has 183 inch wet deckle. Note comparative size of men in this shop view.

Minnesota & Ontario Paper Co.'s International Falls Mill No. 4 machine, views of which are shown above, was originally installed in 1910, but it is so completely rebuilt and has so many modern features, including extensive use of stainless steel, that it is unrecognizable as the machine it used to be.

Last month we described major parts of the Pusey & Jones machine, designed for 120 tons a day, with Reliance Electric sectional variable speed drive and many new parts and with number of dryers and Fourdrinier length both increased. The use of stainless steel in stock entrance equipment is another noteworthy feature.

The Valley Iron Works entrance equipment stands seven feet above the wire and has an 183-inch wet deckle. From the four new Bird screens to the breast roll of the machine, Valley Iron supplied all equipment. This includes a stainless steel lined screen gathering box leading

the stock to a central downspout and flow manifold, the latter constructed of solid stainless steel complete with automatic level control through butterfly valve. The big polished headbox is stainless steel lined. Then there is a stainless steel lined with auxiliary slice. The equipment handles stock at speeds from 200 to 1200 fpm. and everything in contact with stock is solid stainless or stainless steel lined.

All exterior portions of this entrance equipment which are not stainless steel are Lithcoted with six coats baked on for rust prevention.

U. S. WOOD PULP IMPORTS

		(In Sh	ort Tons)			
From:-		Sweder	Finland	Norway Total		
1946		445,124	115,220	0	560,344	
1947		. 555,215	223,973	9,577	*793,693	
1948		. 384,583	175,900	13,218	†575,397	
1949 1st	4 Mos.	. 44,520	14,505	3,217	\$ 62,246	
*Also	include	8 4,928	tons from	Russia		
†Also	includes	1,696	tons from	Austria	la.	

Also includes 4 tons from Czechoslovakia.

Black-Clawson Buys Kohler

Purchase of Kohler System Co. of Chicago, and licensing of its equipment by Black-Clawson Co. of Hamilton, O., is announced by Homer D. Martindale, president of Black-Clawson. The engineering staff of the Kohler System, under John B. Kohler, has moved to Fulton, N. Y., where manufacture will be conducted by Dilts Division of Black-Clawson. The Kohler System equipment has application in the pulp and paper field and particularly in the converting trade.

The Kohlers introduced the electric double-motor press drive, and the first pushbutton press control. Another great contribution was the "Magazine Reel" and full speed "Flying Paster."

Kohler developments include core driven winding equipment, with changing cores at full speed from a fully wound roll to a fresh core, a new differential web control.

Marathon Manufactures Own Printing Inks in New Plant

Marathon Corp. has moved its ink manufacturing operations into the new plant on Milwaukee Street between Third and Sixth Streets in Menasha, Wis.

Completion of the building marks another step in the company's expansion and modernization program which provides complete integration and control of every manufacturing operation entering into Marathon's finished products at Menasha.

Built of reinforced concrete, steel, brick and glass, the plant provides 28,000 square feet of floor space in a one-story structure, 200 feet by 140 feet.

The building incorporates the most advanced and efficient principles of line production and houses complete equipment and facilities for mixing and grinding all types of inks.

Germany Now Exporting Paper Products to U.S.

Germany has exported decoratively printed paper napkins to the U. S., and napkins also have come from Norway and Britain. Warren B. Bullock, manager of the Import Committee of the American Paper Industry, issued a release in which he predicted more paper products imports from Germany, especially in specialties.

An International Reunion Of the Kelley Papermakers

Claude Kelley, now the paper mill superintendent at Crown Zellerbach's busy newsprint mill in Port Angeles, Wash., after 22 years at Ocean Falls, B. C., recently enjoyed a reunion at his new home with his son, Harvey A. Kelley, who is paper mill superintendent of the Great Lakes Paper Co., news mill at Fort William, Ont., under Charley Michels, general superintendent. Harvey Kelley took his family on the trip.

Another son of Claude K., Casimir E. Kelley, has finished college and is working as a paper machine hand at the Port

Angeles mill.

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MINNESOTA & ONTARIO PAPER COMPANY'S

NEW NO. 4 MACHINE

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paper machines it's INLET
and HEADBOX by

VALLEY

VALLEY IRON WORKS CO.
Appleton, Wisconsin

YES! GO WEST! 1949 Fall Meeting TAPPI, Portland, Oregon

July, 1949

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1949-1950



Presented as a Service to Members of the Paper Industry

WILLIAM L. BARRELL COMPANY LAWRENCE, MASSACHUSETTS

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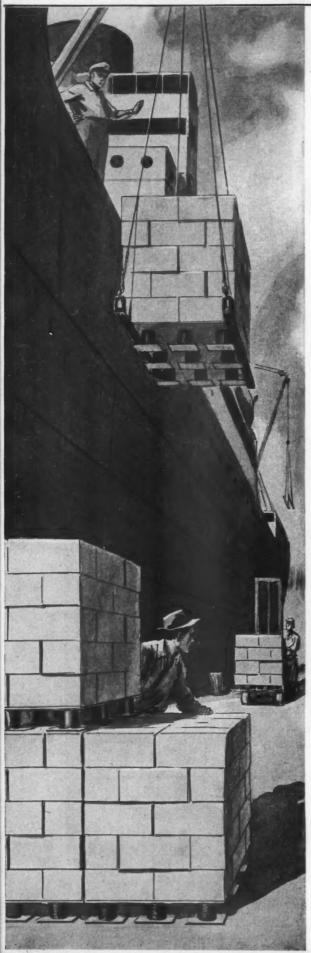
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PAPER PALLETS CUT SHIPPING COSTS

NEWS ITEM: Disposable 8-lb. paper pallets are replacing 60-lb. wooden skids for economical shipment of large unit loads.

A new method of reducing freight costs is the use of water-resistant paper pallets that can be discarded at the end of a trip. Made of a corrugated paperboard platform supported by spiral chipboard tubes, these paper pallets can carry static loads of 18,000 pounds in transit by plane, truck, rail or ship. We will gladly supply manufacturer's name on request.

Paper sacks for open storage . . . paper bags to package ice . . . paper for polishing silver . . . new uses for paper calling for new standards of lightness and toughness, new standards of quality in performance.

To meet these new responsibilities and new opportunities developed by the Pulp and Paper Industry, the Puseyjones Organization is now devoting itself completely to the design and construction of Paper-Making Machinery built to new high standards of speed and efficiency, and to the modernization of existing machines.

Additional capacity in Metals Fabrication is now available through conversion of facilities formerly devoted to the building of ships.

Puseyjones Engineers will welcome the opportunity to work with you in solving production problems.

THE PUSEY AND JONES CORPORATION

Established 1848, Builders of Paper-Making Machinery

Established 1848. Builders of Paper-Making Machinery Wilmington 99, Delaware, U.S.A.

YES GO WEST

1949 Fall Meeting TAPPI, Portland, Ore.



MATERIALS, METHODS and MEN

1949 Prize-Winning Paper in Cunningham Award Contest

By Lawrence Miller The Pioneer-Flintkote Co., Los Angeles

Industry is a combination of materials, methods, and men to produce economic products. It is management's responsibility to coordinate these three factors into a team for the best possible relationship with industry, employes, customers, stockholders and the communty. (*) There is little doubt that the test of the ability of management will be to continue the recent high level of employment and standard of living forward into the future (*) Let use look at the components of this team

Materials

The days of any old material in any place are gone forever. Industry has long since been shown the best use of most materials until the exact selection has now become so specialized that men are especially trained to recommend a material for a specific use. In the paper mill careful sorting of scrap ma-terials and exact use of pulps for most econ-omical results has long been practiced. Few entirely new materials are found in the paper mill, but rather more intensive use of the ones we now have is the rule. For example, beater furnishes for common products have become well standardized.

Methods and equipment in the more mature industries of which pulp and paper is one have also been developed to a high degree of standardization and interchangability so that only a relatively few basic pieces of equipment are used. The paper machines themselves are very highly standardized with developments heing largely limited to increasing sizes and being largely limited to increasing sizes and

Men

In our rapidly maturing economy there remains but one factor of industry where major progress and large forward steps can be made. It is the factor of men which is receiving the attention of management today. The personnel manager is becoming very rapidly a highly paid man responsible only to top management and occupying a position of authority and limiting his efforts to this one field.

All of management has found an increasing mphasis on industrial relations with each supervisor required to be an industrial relations man in his own right. For most super-vision and management the manpower factor in industry is a problem in labor union rela

Why Men Work

To understand how to handle one's man-power, it is necessary to know why men work. The old answer was for wages. That is a rather severe over-simplification. Men work for sev-

First and foremost by a large margin is serity. The worker wants the knowledge that will retain his job.

The remaining factors are not as definite, but almost all evidence gives the order something like this: Identification as an important part of the organization; interest in management in the worker's welfare and success; recognition of the worker's contribution (not necessarily by monetary means); and treatment as an indi-vidual so that he may retain his self-respect. Very little emphasis on wages.

Personnel Department

The personnel department can help(') on the industry level by accurate job analysis and specification, definite standards of selection, intelligent placement, adequate training (both before and after placement), and considerate termination.

To preserve the individuals self-respect four

items which ought to be done before firing a man are: Submit the reasons in writing; have a top man study the man's record; make cer-tain that the discharge is fair and not based on personal feelings or nepotism; and make doubly sure it is not a cover-up for another's

Authorities say that the day of giving a man a pink slip in his pay envelope is passed be-cause "it did much to create the impression that management is cold-blooded and in-human." (*) Contrarily, an adequate morale building program of education, recreation, and counseling will pay large dividends in a concounseling will pay large dividends in a con-tented, loyal, and interested labor force. For example, an appreciable proportion of labor disputes are caused by not giving workers facts on which to base their reactions.⁹

The company annual report prepared for ease of understanding is one of the most valuable ways of telling the employes the things they want to know such as history and origins of the company; amount and character of sales, profits, wages, and taxes; present status of the company in the industry; and provision for the future. In fact, a report like this has been shown to be of more interest and value to employes than it is to stockholders.

Since the Taft-Hartley law definitely classified foremen as supervisors, there has been a definite trend in industry to give them this

Many plants have adopted the policy of paying at least 10% more to the foreman than the highest-paid man under him. In addition there usually is a more liberal policy of pay for overtime, vacations, and fringe benefits of white collar, better conditions, offices, insurance, etc. The foreman's responsibility makes it im-

perative that management share all the information it has. Regular training programs particularly in the handling of men are usual.

Workers

Union members are the predominant workers Union members are the predominant workers in industry. In dealing with workers, the human relations becomes largely a problem of union relations. In a very recent study by the National Planning Association entitled "The Causes of Industrial Peace"s a large Pacific Coast paper mill tells what it has done to get good employs relations. good employe relations. How they did it can be listed like this:

Management accepted the principle of unionization. In return the union supported private ownership and operation. These two things are major points in worker security.

The company uses only experienced men in its negotiations with the union so that a novice will not upset the equilibrium.

Management has retained control of hiring and firing, promoting, directing labor, super-vision, and installation of improvements.

The unions have the protection of the check off, maintenance of membership, region-wide bargaining, and the union shop. These items bargaining, and the union shop. These items allow the maintenance of efficient production and give the union the security it desires most of all.

The company did these things by careful selection of employes, consulting the formen and union before making changes, keeping the foreman-worker ratio high with succifient authority vested in the foreman. Security is promoted by seniority, a retirement plan, and gradual change. No paternalism is practiced, and managers are required to get along with the men.

Conclusions

Of the three components of industry, materials and methods occupy a relatively mature position. It is in the field of manpower that pioneering is still being done.

The relationship of management to manpower

is largely a question of cooperating to achieve the goals of each. It has been shown that success can be had in retaining the operation of industry in managements hands and still in large measure satisfy union workers' (and all workers') goals of security, recognition, and treatment as a human being. As more com-panies learn and practice the newly developed science of industrial relations, we can expect an era of greater industrial progress.

1. Engineering Opportunities in Industry, E. G. Bailey, Mechanical Engineering, Vol. 7, No. 1, P. 5.
2. Opportunities for and Responsibilities to the Young Graduate Engineer in Industry, Lawrence Appley, Mechanical Engineering, Vol. 7, No. 2, P. 150.
3. The Handbook of Industrial Relations, J. C. Aspley, Editor, 1944, The Dartnell Corp. Pp.62-3
4. Ibid, Pp. 63-4.
5. Ibid, Pp. 676ff.
7. Causes of Industrial Peace, Mill and Factory, Vol. XLIV, No. 2, Pp. 93ff.
8. Causes of Industrial Peace, Mill and Factory, Vol. XLIII, No. 6, Pp. 97ff.

Cunningham Prize Awarded

Robert W. Stevens, manager, Angelus Paper Box Co., Los Angeles is the new chairman, Paper Makers & Associates of Southern California, succeeding Bruce Brown, Jr., Fibreboard Products, Inc. The annual election of officers was held at the May 19 meeting.

Joseph T. Cooley, Angelus Paper Box, was chosen to succeed John Doering, Fibreboard, as secretary-treasurer, while Claude Sharp, L. A. Paper Box Co., was elected vice chairman. New members of the executive board are Glenn Phillips, Flintkote; Conrad Thiel, U. S. Gypsum; and Bruce Brown, Jr. Chairman of the nominating committee was Alonzo Hatch, California Container Corp.

The annual George M. Cunningham Award for the best paper presented throughout the year on mill operation or an allied subject, was won by Lawrence Miller, Pioneer-Flintkote, whose paper read before the members, was "Materials, Methods and Men." Cash prize of the award was \$100. George M. Cunningham, charter member of PASC, is the Southern California manager, National Oil Products Co. (picture on page 68).

Mr. Stevens was chairman of the Cuningham Award, and the judges included Frank Wheelock, Fibreboard; Walter Quinn, Container Corp.; and Otto Sass, Flintkote. Conrad Thiel, U. S. Gypsum, last year's winner, was given honorable mention for his paper.

BENEFITS OF INTEGRATION Widening Markets Bring Wealth

"The growing capacity of the land—rather than the standing timber—is the greater natural value," Howard Morgan (right), manager of the Pulp Division, Weyerhaeuser Timber Co., declared in a recent address before the Pacific Northwest Trade



Association in Bellingham, Wash.

"We still have large and unmeasured quantities of timber available," he said, "but so-called wood waste is rapidly becoming a thing of the past. If you know of such a supply of wood, you may be sure there is a market for it in some form if you can economically collect and transport it to a suitable manufacturing site."

Mr. Morgan outlined the benefits derived from what he called a two-fold integration of a forest industry such as the Weyerhaeuser enterprises. He cited Puget Sound Pulp & Timber Co. of Bellingham as another example.

"First there is the operation of a forest or tree farm coordinated with the operation of plant facilities to utilize the crop grown. Secondly, there is the diversification of products manufactured to give a more complete utilization of the wood grown than is possible when only one or two primary products are made. This diversification and provision for using all types of wood justify a more complete job of tree farming and aid the permanence of the industry.

"To the worker this means a greater stability of jobs due to sales in diversified and unrelated markets. It means a greater variety of jobs which the worker can seek . . . more opportunities for highly-paid skilled jobs. It means greater job security . . a better life in a community built on permanent employment.

"To the community, sales and diversified markets mean greater stability of plant operation and continuity of community income. The larger volume of sales resulting from several industries working on the same forest area means a greater number of jobs and a larger income for the community. The greater invested capital and the permanent nature of the integrated industry provide opportunity for permanent, long-range development of the attributes that go to make a good community. Opportunities for a wide variety of employment are offered.

"To the tree farmer who is located within any reasonable hauling distance of the plant the integrated operation means a market for his crop, be it a thinning or full harvest or the logs left over after a lumber cut. It offers the advantages of a prosperous and stable community.

"To the federal government, who owns the majority of all the timber in this area, it means that better utilization is provided for the harvesting of its timber lands regardless of who carries out the harvesting. Perhaps there is nothing amiss to call attention to the fact that the greater the earning of the land the greater the taxing base for financing our cost of government, for our schools and highways.

"I have sneaked in another group who many of us have not dared mention for many years. But I do believe that diversification and utilization are good even though they protect the dollars invested by a company's shareholders."

Unusual Uses of Wood

"Wood has many uses," said Mr. Morgan. "Very possibly wood supplied a considerable part of the material that made your new suit; the ice cream you bought at the corner store; the liqueur you drank after dinner; the movie film that carries your entertainment; and the bomb that was dropped on our enemies.

"In regard to the suit, new types of rayon made from woodpulp are proving excellent fibers for clothing. The chemical bearing the elaborate name of carboxylmethyl-cellulose has proven to be a palatable stabilizer for adding smoothness to ice cream, and is extensively used in ice cream and several other foods. The liqueur is made from alcohol produced from waste sulfite liquor. In this case you probably would have to use a European brand for the Americans have not adapted their psychological reactions to the consumption of waste liquor alcohol, even though chemical analysis and the most critical of tastes can find no difference. The bomb, of course, comes from nitrated woodpulp, which produced a large tonnage of explosives used during the last war."



LAWRENCE MILLER, PIONEER FLINTKOTE CO., Los Angeles, seated, receives congratulations from George M. Cunningham, National Oil Products Co., on winning the annual Cunningham Award of the Paper Makers & Associates of Southern California. Right is Conrad Thiel, U. S. Gypsum Co., last year's winner and holder of Honorable Mention in 1949 competition. Mr. Miller's paper, worth \$100 to him, was "Materials-Methods-Men."

BELOW: NEW AND RETIRING OFFICERS, Paper Makers & Associates of Southern California. Center is Bob Stevens, Angelus Paper Box Co., Los Angeles, new Chairman, succeeding Bruce Brown, Jr., Fibreboard Products Inc., facing him. Others are (left to right): Glenn Phillips, new Executive Board member; John Doering, retiring Sec.-Treas.; Joseph T. Cooley, new Secretary, Angelus Paper, and (at extreme right) Claude Sharp, new Vice Chairman, L. A. Paper Box Co.

0 25 50 75 100

TONS OF COAL USED

BEFORE C-B

TONS OF COAL USED

AFTER C-B

"last May we installed a Cochrane C-B Condensate Pump—immediately the results were remarkable!"

The above quotation is from a letter written by the vice-president of a paper board company in reply to a letter of inquiry from another manufacturer.

He continues, "Whereas we were using 45 to

50 tons of coal a day and producing between 65 and 70 tons of paper, we were able, after we installed this pump, to step up our tonnage to between 80 and 87 tons and decrease the consumption of coal to 28 to 30 tons a day."

Now these statements are unusually enthusiastic in connection with any piece of equipment, yet they are not unusual among users of Cochrane C-B equipment.

The Cochrane C-B System of Condensate Drainage Control (of which the jet loop "pump," mentioned in the quotation above, is the heart)

is a "closed circuit" high pressure condensate return system. Condensate is removed instantly and positively and is pumped back to the boiler at the highest possible temperature, with all insulating entrained air removed.

Paper and board manufacturers throughout the country are using the C-B System. Why not you?

with any piece of equipment, yet

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SYSTEM OF CONDENSATE DRAINAGE CONTROL

July, 1949

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Write for a copy of this new 24page catalog, containing valuable information on the subject of efficient heat transfer in heating, cooking, drying and pressing operations. Use this coupon:

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Please send me a copy of Cochrane Publication 3250, on Condensate Drainage Control.

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NORTHEAST





DR. EDWIN C. JAHN (left) who has been ap Director of Research for New York State College of Forestry, Syracuse, N. Y., heading research program budgeted for \$225,000 for 1949-50. He will work with industries. He is Professor of Forest Chemistry

HERBERT A. BRAWN (right) who has moved back to his hative hounts of New England in becoming new General Manager of Monadnock Paper Mills, Inc., Bennington, N. H., which makes coating, writing and bond papers on two Fourdriniers. He was Gen.
Supt. at American Envelope Co., West Carrollton, O.,
where he recently helped direct construction of first
new fine paper mill in that area in half century.

THOMAS E. PALMER, has been appointed assistant to Benton R. Cancell, vice president in charge of manufacturing of St. Regis Paper Co.'s Printing, Publication and Converting Paper Division. W. A. ZONNER, former manager of the Deferiet, N. Y., mill, has been named general manager of manufacturing for the division in New York State, to supervise operations at Deferiet, Harrisville and Norfolk. Assistant Mill Manager C. H. PLANTZ succeeds Mr. Zonner as Deferiet manager. Mr. Palmer is also responsible for new products development and manufacturing, and servicing of customer accounts. He resides at Watertown, N. Y., with offices at the Deferiet mill.

LIONEL M. GOLDBERG, vice president and director of National Container Corp. in charge of the Long Island City, N. Y. plant, has been elected comptroller and assistant treasurer of the company, it was announced by Samuel Kipnis, president.



G. DREIS, Secretary of the New England technical group and technical service engineer for Hercules Powder Co. in Holyake, Mass., is also a pilot and he is shown here about to fly his passenger, R. F. HURST, Bigelow Sanford Co., New York, back to the big city after Mr. Hurst addressed the group's 1949 Annual Meeting in the Hotel Weldon, Greenfield, Mass.

CHARLES P. PUTNAM, manager of the engineering department of the New York & Pennsylvania Co., New York City, died recently of a heart attack while en route to Philadelphia. Mr. Putnam was born in 1893 in Cliftondale, Mass., and had been with New York & Penn in his present capacity since 1927. He was a graduate of MIT and later was associated with John A. Stevens, consulting engineers of Lowell, Mass. He is survived by a widow and two daughters in Lock Haven, Pa.

S. NEWTON FINNEY, age 61, vice president of John Waldron Corp., New Brunswick, N. J., passed away suddenly in Metuchen, N. J., May 22. Mr. Finney had been engaged in manufacture of textile and paper machinery for many years. Born in Richboro, Pa., he attended Drexel Institute and served in an engineering capacity with Dill & Collins, Inc., and Moore & White Co. of Philadelphia.

O. FREDERICK SWANSON, who retired in January as president of the New York Pulp & Paper Trading Co., New York City, died May 30 at his home in Manhattan. He had been head of the company for 30 years, was born in Sweden and had been in the U.S. for 45 years.

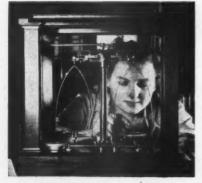
JOSEPH A. CHADBOURNE, president of the Old Colony Envelope Co., Westfield River, Mass., recently received at a special company dinner a safety plaque from

LOIS V. HANS, so well and favorably known as the secretary-treasurer of the Delaware Valley section of the technical association, is leaving Hercules Powder Company, with which she has been associated for many years, on June 30th. She will spend the summer doing special advertising writing and may attend the Fall meeting in Portland, Ore., next Sep-

HARRY C. DUTTON, formerly president of White & Wyckoff, greeting card manufacturers, has become president of Eaton Paper Corp., Pittsfield, Mass., succeeding GEORGE CLAYSON who will remain as vice president of Eaton. Pending a coming directors' meeting, Mr. Dutton's successor at White & Wyckoff has not been named.

THOMAS A. GALANTE, president of Walloomsac Paper Mills, Inc., has announced that all departments formerly at 25 Vanderbilt Ave., N. Y., have been moved to the mill at Walloomsac, N. Y., whose post office address is P. O. North Hoosick, N. Y.

DONALD WILLIAMS has just been appointed director of sales for The Dow Chemical Co., according to Leland I. Doan, former sales director and now company president.



One of the Women Behind Eastwood Wires

Muriel Abrash

Operates on a "Small Scale"

On an over-all basis, we operate on a large scale, considering that we make our own alloys, cast our own plates and from them draw our own wires, wind them and weave them.

Even the "smallest" phase of our operations is "big" to us; for example, the step pictured here: that of determining the correct analysis of alloys for every type of warp and shute wire.

Here in the laboratory is the heart of Eastwood's manufacturing philosophy: Proper Alloying + Control + Analysis = Quality in Fourdrinier

EASTWOOD-NEALLEY CORPORATION • Belleville, N. J.

Lyddon & Co. Exporters of wood pulp to all PULP world markets PAPER Parsons and Whittemore Paper Exporters Wood Pulp A World-wide Organization • 1 10 EAST 40TH STREET, NEW YORK 16, N. Y. STOCKHOLM LONDON SAO PAULO **BUENOS AIRES** MONTREAL SOUSSE

July, 1949

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VICTORIA MEET (Cent. from page 51) merchandising, improved production and increased plant efficiency, more research.

TECHNICAL PAPERS

Technical sessions were confined to the second day. Howard B. Urquhart, assistant to the resident manager, Powell River Co., presided over a papermaking session; Sidney Collier, assistant superintendent, Puget Sound Pulp & Timber Co., Bellingham, over the pulp session. Mr. Urquhart also read the paper prepared by himself.

Powell River Machine

Fred Riley, general superintendent of paper mills, Powell River Co., discussed Powell River Co.'s new No. 8 paper machine (described in detail in the February, 1949, issue of PULP & PAPER, p. 43).

"A point of interest in the start-up period was the communication system," pointed out Mr. Urquhart. "An amplifier was built for the purpose, and earphonemicrophones sets were strategically located in the machine basement near various electrical equipment, up on the meter gallery, on top of the stock inlet, at the stock preparation panel and at the machine tender's panel. This enabled information of faults to be relayed immediately to all concerned and major difficulties were avoided."

The machine is running well at present, reported Mr. Urquhart. It has been in operation since last September. The white water system and the attendant fiber reclamation are satisfactory. The broke system and its attendant controls work well. The stock inlet proved satisfactory in all of its fundamental concepts. It has operated up to 1550 fpm with good results. The sheet formation is considered good for an undandied sheet. Additional desuperheating capacity is being installed.

Supercalenders at West Linn

Speaking on supercalender operation and equipment at the West Linn,

Carl Fahlstrom Wins Leg on Men's Golf Trophy

Carl Fahlstrom, assistant resident manager, Longview Fibre Co., Longview, Wash., won men's low gross honors in the convention golf tournament over the sporty Colwood course, nine miles north of Victoria, B. C., with an 18-hole score of 75.

LeRoy M. Shanaman, district sales manager, Penn Salt Mfg. Co. of Washington, Portland,

Penn Sait Mrg. Co. of Washington, Portland, Or., scored low net with a score of 68. Mr. Fahlstrom's victory gave him a leg on the Ohio Knife trophy won last year by Paul Holmes, steam plant engineer, St Regis Paper Co., Tacoma.

Howard Urquhart, Powell River Co., won

Canadian men's low gross with 78.

Mrs Erik (Marie) Ekholm, wife of the general superintendent, Puget Sound Pulp & Tim-ber Co., won women's low net and low gross honors with 95.

Longest drive was by Bill Clines, General

Chemical, Seattle—260 yards.

Harris Fenn, Jr., Pacific Coast manager, National Analine Div., Allied Chemical & Dye Corp., San Francisco, was closest to No. 7 pin.

Mr. Urquhart had longest drive on No. 9—240 yards.

Joe McQuaid, Seattle manager for Electric

Steel Foundry Co., was golf chairman and he and Don Livingston, Esco, Vancouver, managed the tournament. Sixty-eight men and 12 ladies participated and there were 34 prizes.

LEO KELLEY IS HONOR!

THE MIGRATORY PED-**DLERS** Brothe hood, Seattle W. R., after fast show. In business suit (left center) is Leo C. Kelley, their initiation.



After most delegates had gone home and the "hands-across-the-border" convention at toria was already a pleasant memory to over 300 participants, the Seattle chapter (Waiting Room No. 2) of the International Brotherhood of Migratory Peddlers received this wire from Ed Brennan, resident manager of the B. C. Pulp & Paper mill at Woodfibre, B. C.:

"TOWING BARGE SENT VICTORIA SUNDAY LOADED TO GUNWALES WITH YOUR GIFTS TO LEO KELLEY WITH HIM AT BOTTOM. ONLY WAY I KNOW TO GET LOOT HOME AND KEEP HIM DOWN."

If Leo C. Kelley's spirits were soaring after that meeting, it was no more than his new associates in the I. B. of M. P. had hoped for. They had selected Mr. Kelley, general superintendent of the British Columbia Pulp & Paper Co., to be initiated as an honorary member at the Victoria convention "Wake Em Up" breakfast, because of his activities over the years in stimulating the participation of young men in industry activities and his whole-hearted cooperation with industry groups on both sides of the border.

That's the serious and unspoken side of the hilarious initiation which he was forced to un-

dergo, and did so with such good grace, and the implication was well understood by the huge

attendance that got up in time for the early morning show.

attendance that got up in time for the early morning show.

The Seattle chapter of the I. B. of M. P. came on stage dressed as shipwrecked sailors just arrived in Victoria, bedraggled and broke, and they picked Mr. Kelley out of the audience (after a great deal of forethought, however) to initiate and thus replenish their depleted treasury. There was much good-humored kidding about Mr. Kelley's cribbage playing, his experiences being stranded on a Vancouver Island lake while fishing, etc. The gifts to him presented on the stage and referred to by Mr. Brennan in his telegram above, included a fourfoot high book on "How to Make Pulp," a huge oversize cribbage board and a silly fishing rod and line that looked like it came out of a Smokey Stover cartoon. The show ended with a Canadian immigration officer arresting the whole gang, after the "peddlers" sang their now well known song and gave their yell. snow ended "peddlers" their now well known song and gave their yell.

Mr. Kelley, who joins A. G. Natwick of Crown Zellerbach Corp., Camas; Erik Ekholm of Puget Sound Pulp & Timber Co., Bellingham, Wash., Tony Siebers of Weyerhaeuser, Springfield, Ore.; Ray Bennett of Ecusta Paper Corp., Pisgah Forest, N. C., and George McGregor of Minnesota & Ontario Paper Co., International Falls, Minn., as an honorary "peddler," has worked in mills on both coasts of Canada.

Born in Fredericton, New Brunswick, he was graduated from the University of New Brunswick with a B. A. degree and later a master's in chemistry. Then came a tour of duty in World War I after which he worked for the Fraser Companies mills in Edmundston, N. B., and Campbellton, N. B. He moved to British Columbia in 1937 to be superintendent at Woodfibre and is now general superintendent of B. C. Pulp's mill at both Port Alice and Woodfibre. Mrs. Kelley was in Victoria, too, but had to hear only a second-hand report of the breakfast show, a stag affair. They have two sons and a daughter and one son is employed at Port Alice.

Ore., division of Crown Zellerbach Corp., F. Robert Riley who is coating plant superintendent, stated that supercalender operation is not quite as efficient as that of a paper machine, due to the greater time lost in changing reels of paper and in slowing down for splices and various defects that might cause breaks. Efficiency is greatly dependent upon the quality of the paper received. With good paper, a supercalender operating at a speed onethird faster than machine speed should have little difficulty in handling the full output of that paper machine.

"To summarize," said Mr. Riley, "we have a large and complex machine employing pressure, heat, friction and steaming to improve the printing surface of our papers. These same conditions may be observed in the simple, commonplace occurrence known as ironing the weekly laundry. That is supercalendering - high speed, controlled ironing of both sides in a single continuous operation.

"Control is neither simple nor easy to maintain. Uniformity is our goal. Constant alertness is required of the operator. To assist the operator our instrumentation includes: 1. Visual and recorded speed (normal speeds are about 1400 feet per minute); 2. Visual and recorded pressure (1500 per lineal inch); 3. Visual and recorded finish (from 30 to 45 B & L); 4. Visual degree of unwind friction; 5. Automatic plus manual control of windup tension with visual indicator; 6. Manual control and visual indication of steaming; 7. Checking of operating temperatures by means of a surface type pyrometer when the need is indicated.

Slime Control at Port Angeles

"Paper Mill Cleanliness a Contribution to Slime Control" was the title of



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A NEW and

MUCH LOWER PRICED ENZYME

Brings sizing costs down to rock bottom and gives you the performance you need and demand.

- 1 if you use Enzymes for Converting Starch
- 2 if you use Chlorinated Starches or Dextrines

IT WILL PAY YOU TO INVESTIGATE AMYLIQ-M

WALLERSTEIN COMPANY, INC. . 180 MADISON AVENUE . NEW YORK 16, N. Y.









THE VICTORIA CONVENTION—LIKE POLAND SPRINGS, ME., MEETINGS IN THE EAST—was a ladies convention, too. It brought out nearly 150 ladies—virtually half the attendance—among whom were (I. to r.): MRS. LERDY M. SHANAMAN, whose husband is District Sales Mgr. for Penn Salt Mfg. Co. in Portland, Ore.; MRS. LOUIS VAN ARSDALE, wife of Plant Engineer, Rayonier Inc., Shelton; MRS. R. W. RILEY, wife of Coating Plant Supt., Crown Zellerbach Corp., West Linn, Ore.; MRS. J. W. WENGER, wife of Tech. Supervisor, Crown Z, Port Angeles, Wash.; MRS. RAY A. DUPUIS, wife of Asst. Resident Manager, Crown Z., West Linn; MRS. MEDER JOHNSON, wife of Pulp Division Mgr., Sumner Iron Works, Lowell Wash., and MRS. CARL FAHLSTROM, wife of Asst. Resident Manager, Longview Fibre Co., Longview, Wash.

a paper given by J. V. Venables, who has specialized in this work at Crown Zellerbach's newsprint mills, Port Angeles, Wash. He said that the first and most important consideration in the treatment of slime accumulation by means of slime controlling chemicals is to have the system to be treated as clean as possible. This was especially true in the case of newsprint machines, where very small portions of sloughed off slime will cause a break. Slime controlling agents definitely "sicken" accumulated slime growths sufficiently to cause them to break away and follow the stock to the machine.

His paper was one of the most practical on the subject yet given, with many suggestions for cleanup.

"Where to treat and how to treat will be of extreme importance," said Mr. Venables. "A location where slime growths show that they are definitely hindering operation must be given strict attention, both in chemical treatment and manual cleanup. After a good cleanup has been assured, the chemical treatment should be applied in 'slug' form, applying to a high concentration of chemicals over a given period at intermittent times."

In conclusion, Mr. Venables said that slime control, considered a luxury a few years ago, has proved to be a necessity. Lost production and poor quality caused by slime are unnecessary and can be controlled by thorough cleanup, close inspection and the correct use of slimacides now on the market. When adequate control has been accomplished and cooperation throughout the plant attained, more efficient operation with high production and top quality should be certain.

Kraft Recovery Problems

Operational difficulties encountered with a kraft recovery unit at the Ocean Falls, B.C., mill of Pacific Mills were described by Morley E. Patterson in a paper written by himself and Donald B. Lloyd. The problem was to deal with a decrease in steam per ton produced with an increase in carry-over and smelting conditions on the superheater, increased maintenance on brick and lance doors and deterioration of working conditions on the lancing decks resulting from increased

pulp production. In addition, there was precipitator corrosion and sodium chloride in the system.

He referred to the assistance received from L. D. MacGlothlin, kraft superintendent, Crown Z., Camas, and B. C. Smith, technical assistant to the kraft superintendent, Crown Z., Port Townsend, Wash. Considerable improvement has already been observed and experimental work is continuing. It has been found that corrosion is directly attributed to high moisture content in the gases, sodium chloride, sulfur dioxide and air leak in the unit.

Sodium chloride was found to be a handicap to the whole recovery unit, initially introduced in the salt waterborne pulp hemlock which has a tendency to pick up sodium chloride by osmosis through lower sinking in the water. Sodium chloride, incidentally, has even been a problem in burning hog fuel. The complete answer hasn't yet been found.

Savage Describes 8-Stage Bleaching

Jack V. Savage, sulfite superintendent, who also has charge of both kraft and sulfite bleaching at Crown Zellerbach Corp., Camas, told about the new domeroofed 150-ton, 8-stage kraft bleach plant at Camas (described in December, 1948, PULP & PAPER, page 68).

He said that the bleach plant had its inception several years ago when the entire industry started to take "a frantic inventory of the pulpwood situation for tomorrow." A careful cruise of C-Z holdings showed that a substantial percentage of the company's timber was Douglas fir.

"Someone in the organization coined the phrase 'Trees Forever,' which the timber department was willing to underwrite if we would take Douglas fir along with the other species in our pulp mills," said Mr. Savage. "Douglas fir, of course, has characteristics different from the more commonly used pulp species, the most desirable one being an unusually high tear strength. But in addition Douglas fir heart wood contained a coloring matter that made bleaching to high whiteness a rather tough assignment. We wanted to bleach pulp from this wood and maintain strength advantage. We also wanted enough flexi-

bility built into the plant to take care of several different contemplated color specifications as well as wood species. The research and engineering departments took the ball from there and came up with the Camas bleach plant."

Mr. Savage mentioned that the plant uses about 70,000 gallons of water per ton of pulp; steam usage is in the range of 4,000 pounds per ton. Electric power usage is 196 K.W. per ton when all stages are used.

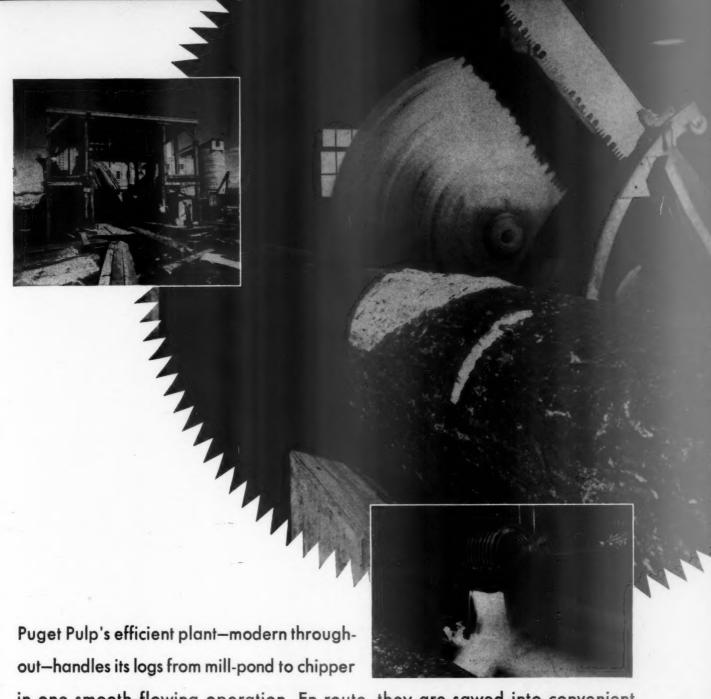
"Like everything else connected with the industry," said Mr. Savage, "the final verdict is determined by the quality of the product coming off the dry end of the paper machine. To date we have made paper from the various bleach grades in weight from 40 pounds to 200 pounds for a wide variety of uses." (His paper on page 78).

Cottrell Precipitator Operation

C. E. Hand, electrical superintendent, Bloedel, Stewart & Welch, whose unbleached sulfate mill at Port Alberni, B.C., is one of the newest to be brought into production in the Pacific Northwest, explained some aspects of Cottrell precipitator operation in the kraft industry. This represents a fairly recent development in Canada and it has introduced new problems in operation and maintenance to an already highly specialized industry. The Port Alberni installation was made by the Precipitator Co. of Canada and was designed to handle 78,000 C.F.M. of gas at 270 deg. F. to 310 deg. F. at an efficiency of 86 per cent minimum. The arrangement consists of one gas unit of four sections in series, with only three of the sections equipped with electrodes.

"In spite of certain difficulties, the unit is operating very well," reported Mr. Hand. "Many of our troubles have developed due to circumstances not foreseen when the equipment was ordered, and lack of experience may have contributed somewhat to difficulties which might have been avoided.

"The outstanding features which would bear improvement, judging from our experience so far, would be damper construction, high-voltage cable protection by means of high frequency suppressors at



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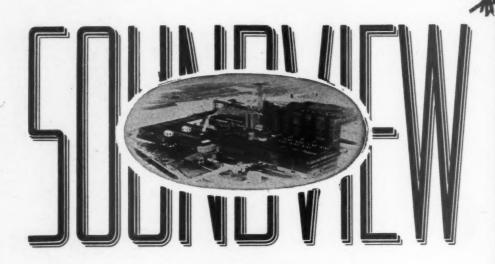
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in one smooth-flowing operation. En route, they are sawed into convenient lengths and then de-barked by water under 1,300 pounds pressure to the square inch. All logs are cleansed before being cut to bits in the whole-log chipper.

PUGET SOUND
PULP & TIMBER COMPANY
BELLINGHAM - WASHINGTON



High Grade

BLEACHED SULPHITE PULP

YES! GO WEST! 1949 Fall Meeting TAPPI Portland, Oregon

SOUNDVIEW PULP COMPANY EVERETT WASHINGTON

the treater ends, and finally, either steel walls for the treaters or grounded heavy wire netting imbedded in the concrete as a means of shielding for radio interference. In colder climates, the problem of insulation would be very important. The Cottrell precipitator fulfill a very vital function in the modern kraft mill. The economics of chemical conservation, and the elimination of fume nuisance, cannot be completely matched by any other system of recovery furnace gas treatment."

AFTER VICTORIA -- WHAT NEXT?

Because of the great success of the first convention of its kind for the western U. S. and Canadian industries, which was held in Victoria, B. C., reported on these pages, PULP & PAPER felt it was in order to ask some of the leaders—informally and unofficially, of course—"where do we go from here!"

Two important things seem to have come out of that meeting:

1. The very young and growing Canadian Technical Section's Western Branch made a decisive impact at Victoria—establishing its place in the western industry. Hereafter, it will be reckoned upon as a factor along with the older similar association groups on the U.S. side of the border.

2. There is a definite feeling among all who were questioned that more meetings like Victoria should be planned for the future. Possibly every other year, or at established intervals at any rate, such a meeting seems to be favored and it is possible that the Coast Section of the American technical association could join with the Canadian group and the American superintendents, who were the two sponsors this year. Ususally, the Spring meeting on the Coast has been sponsored by the two American groups. This year the U.S. technical group is concentrating on a National Fall convention in Portland, Ore., Sept. 11-15, so the other two groups got together on the

Victoria project.

Here are some comments which our inquiry brought forth:

H. J. Ostrowski, technical supervisor, Pacific Mills, Ocean Falls, and one of leaders of the Victoria convention and the Canadian branch:

"Meeting the personnel of the American Superintendents' association was in my opinion the outstanding accomplishment of the meeting. This will assist the industry on the West Coast on both sides of the line to work in closer cooperation. I think that joint meetings should be continued and held once a year alternating from Canadian to American locations. However, any future plans of the Canadian branch lies in the hands of the new executive."

C. L. Craig, plant superintendent, Sidney Roofing & Paper Co. Ltd., the host mill at Victoria—he was a leader in arranging the convention:

"I would like to see the next Coast Spring meeting include the Canadian Technical Branch and see no reason why the three associations could not get together. The biggest thing the joint meeting accomplished, in my mind, was the passing back and forth of information between the two associations, as well as the furthering of personal relations between various mills. Victoria is an ideal spot and I would look forward very much to meeting again in Victoria."

H. Radford Russell, Chairman, Pacific Coast Supts. Div. and Assistant Supt., Everett Pulp and Paper Co., Everett, Wn.:

"I think more meetings should be held at Victoria, possibly once every two years. It has been suggested that we have a three-way, joint affair—American superintendents, American Technical and Canadian Technical branches. The program would have to be extended to take care of the three groups. The Victoria meeting has certainly consolidated the position of the Canadian Technical branch in the minds of all pulp and paper makers on the Coast. I think this meeting has proven that we can have a free exchange of ideas between the two countries in regards to pulp or paper making problems."

Robert M. True, secretary-treasurer of American Coast technical section and Northwest representative for General Dyestuff Corp., Portland, Ore.:

"It seems to me we should investigate the possibility of holding a three-way meeting—Pacific Coast Technical section; Coast Superintendents division and Canadian Technical section branch—next year and at about the same time of the year. I was particularly impressed by the facilities which Victoria offers for meetings of this type—plenty of rooms, excellent food, etc. The program for such an affair could be a joint responsibility with perhaps a half a day devoted to specific technical and mill problems with two or three sessions going simultaneously. Another half day could be devoted to a general meeting where broader subjects could be discussed by qualified persons. I believe that such a meeting could well become an annual affair with great benefit to the industry."

L. R. Hartman, second vice chairman, American Superintendents division, and master mechanic, Pulp Division, Weyerhaeuser Timber Co., Everett, Wash.:

"Some of your questions were already going through my mind on the way home from Victoria. It occurred to me we had tied the international knot a little tighter, at least as far as the industries we represented were concerned. It seems to me a lot could be gained by arranging one large meeting for all three sections, either in Canada or some place in the Pacific Northwest. One large meeting such as the one we had, and one smaller one day meeting held separately by each section might round out a good yearly program for all concerned. Perhaps a discussion of ways and means of bringing out members who seem never have an opportunity to attend would be helpful."

Ray Smythe, Pacific Coast representative of Rice Barton Corp., Heppenstall Co. and others, Portland, Ore.:

"It would be a good idea to carry on these international meetings. Either Vancouver or Victoria would be good convention cities. The meeting accomplished a great deal in giving the Americans and Canadians a chance to know each other better."

John M. Fulton, manager, Pacific Coast Supply Co., Portland, Ore.:

"It was one of the finest meetings I ever attended. I think the participation of the Canadian group added materially to the success of the meeting and I feel the whole thing could be successfully extended to include the American Pacific Coast technical section. While this

would involve three different groups, I think the combination of joint and specialized forums would crystallize and focus operating support. May is always a good month and I don't think Victoria could be improved upon as a spot."

John Guthrie, new Chairman of Canadian Tech. Section, Western Branch, and Supt., B. C. Pulp & Paper Co.:

"I suggest repeating this international convention every third year, either at Victoria, Vancouver, or Harrison Hot Springs. It might be possible to work out a scheme whereby a joint convention could be held alternately in the U. S. and Canada, covering all three organizations. One feature at Victoria was that all papers were of a practical type, and this apparently went over very well. However, this type of paper may not satisfy the T.A.P.P.I. organizations. The meeting did bring about an exchange of ideas between many Canadian and U. S. representatives who might not otherwise have met. One point that went over in a big way was the efficiency and ease of registration."

John Ashby, Resident Mgr. and Chief Eng., Westminster Paper Co., New Westminster, B. C., and first Chairman of the Canadian Western Branch, Tech. Section:

"Perhaps we should be cautious about having a big meeting with all three organizations on the Coast taking part, as it might turn out to be too big and cumbersome for successful technical sessions. But with some careful planning, however, this possibility could be worked out to the satisfaction of all concerned. It may be advisable to have a breakdown of meetings and perhaps have two days of technical session instead of one. These meetings might alternately held in the U. S. and in Canada. As for the present currency export control restrictions, limiting the funds Canadians can take out of Canada, these do not apply to business trips. We could rather quickly obtain a tentative ruling on how this applies to industry conventions, which I feel sure would be favorable to us."

A. S. Quinn, president, Stebbins Engineering Corp., Seattle:

"I think it would be a wonderful thing to continue to hold such meetings and either Vancouver or Victoria would be good locales."

W. M. Clines, General Chemical Division of Allied Chemical & Dye Corp., Seattle:

"I should think the joint meeting, even if occasional rather than regular, would be desirable because of the new mills being planned for British Columbia. From the viewpoint of many persons who find it difficult to attend separate meetings, the joint meeting would afford convenience and economy of time."

Joe E. McQuaid, Seattle manager, Electric Steel Foundry Co., which chairmanned the golf at Victoria:

"To bring all groups together, a joint convention, say, every other year, would be a good plan. I feel that everyone who attended the meeting enjoyed their stay in Victoria—but at the same time it was terribly expensive. I would say we should continue our regular joint TAPPI and Superintendent conventions in the States, and have the joint Canadian-American meeting occasionally. Of course, on the other hand, there is no reason why we shouldn't invite the Canadian group to come down and visit us."

KRAFT BLEACHING AT CAMAS

By Jack V. Savage

Sulfite Superintendent, in charge of both Kraft and Sulfite Bleach Plants, Crown Zellerbach Corp., Camas, Wash.

If there existed a "meter" of some kind for showing which papers stirred up the most discussion and were of most general appeal at the Victoria, B.C., joint coast technical sessions, this one on the new 8-stage kraft bleached plant at Crown Zellerbach's Camas, Wash., mill, possibly would have carried off the honors. It caused much discussion both at the meeting and after the meeting.

Our bleach plant had its beginning several years' ago when the entire industry started to take a frantic inventory of the pulp wood

situation for "tomorrow".

A careful cruise of Crown Zellerbach holdings by our timber department established that a substantial percentage of our timber was Douglas fir.

Douglas fir.

Someone in the organization coined the maxim "Trees Forever", which the timber department was willing to underwrite if we would take Douglas fir along with the other species

in our pulp mills.

Any of you who have had experience with it know that it has different characteristics than the more commonly used species for pulping, the most desirable one being an unusually

high tear strength.

Douglas fir heart wood contains a coloring matter that makes bleaching to high whites

rather tough assignment.
We wanted to bleach pulp from this wood and maintain the strength advantage. We also wanted enough flexibility built into the plant to take care of several different contemplated color specifications as well as wood species.

The research and engineering departments took the ball from there and came up with the Camas bleach plant.

Engineering-from Operation Viewpoint

The engineering involved in the plant is beyond the scope of this paper, however, I would like to touch on it from an operations point of view.

The building is of unusual construction in that the roof is arched to support its own weight, eliminating the usual columns or cross beams. This gives the operating floor an open appearance that has impressed most of those who have visited the plant.

The control panels and washers are located on this floor. All piping and other equipment are on lower levels.

A double rail track system just outside the building permits four chlorine tank cars, one caustic and one lime car to be in use, or con-

nected up for use at the same time.

The sulfite bleach plant and bleach liquor maker use from this same siding which accounts

for so many cars.

The lime for bleach liquor making is unloaded into a 200-ton capacity concrete silo

by an Airveyor system.

The lime is fed from the silo into a Dorr slaker and classifier by a variable speed screw conveyor. Four large storage tanks are pro-vided for hypochlorite. It is pumped from here to a constant head tank on the bleach plant roof for supply ahead of the Rotometers.

roof for supply ahead of the Rotometers.

The caustic soda is unloaded from the tank cars into storage at regular 50% strength.

A supply tank is kept full of 3.5% caustic soda by means of a Foxboro level controller linked to a Treet-O-Control meter which is in turn linked to a "Proportioners Inc. %" Treet-O-Unit. A pump from the 3.5% storage tank supplies a constant head tank on the roof along with the bleach liquor tank.

JACK V. SAVAGE, Sul-fite Mill Supt. and in charge of both sulfite nd kraft bleach plants at Crown Z, Camas, who gave this paper.



The chlorine is piped from all four cars to a manifold inside the building where the operators can tap from any of the cars by opening a valve numbered to correspond with spot stations on the track.

Compressed air for Cl, unloading is supplied by compressors used for that purpose only. The air is passed through a condenser, filter, lettedways and a calcium chloride drying up.

Lectrodryer and a calcium chloride drying unit before it is used in the Cl₃ system.

The pulp for bleaching is made in a addition added to the original kraft mill. pulp is run through knotters and washers and

into two high density storage tanks.

The pulp is pumped from here to the flat screens, over deckers and into either of two 20-ton chests which are the only screened stock supply ahead of the bleach plant. Kraft bleaching consists of two phases:

1. Removal of the remaining lignin left from

the digestion process.

2. Bleaching out of the brown color associated

with kraft cooked pulps.

Calcium hypochlorite is the most expensive of the bleaching chemicals, it is the least selective and is the most harmful to strength. Based on this fact our plant is designed to

produce a pulp pretty well free of lignin before the hypochlorite states are reached.

The lignin is rendered partically soluble by chlorine gas. The solubility is completed by caustic cooking. Two stages of each are employed with an agitated water soak after the first and most severe caustic extraction stage. The pulp strength at this point is actually

greater than the original unbleached pulp.

The amount of hypochlorite bleach liquor necessary to complete the bleaching is very small (about 1.5% of the A.D. pulp) and no strength is lost in bleaching to 80 G.E. cotor.

Description of the Flow

The flow through the various stages is as follows:

The stock is pumped from the brown stock storage to a consistency controller and stock meter. The recording meter measures the stock flow or production rate for the plant. A mixer

flow or production rate for the plant. A mixer at the bottom of the chlorination tower receives the stock from the meter and mixes the chlorine gas with it before discharging into the tower. The chlorine is measured by Rotometer. The pulp consistency is 3.3% A.D. and the retention time in the tower is one hour at 150 tons per day production rate. The chlorinated stock is washed, thickened and discharged into the first caustic mixer directly over the caustic cell. The pulp is pressed by squeeze rolls to about 17% consistency then diluted with hot water and caustic soda to 11% and 160°F. The retention time in the high density stage is maintained by a variable speed screw discharge from the bottom of the tower into the dilution chest. of the tower into the dilution chest.

This stage is followed by an agitated soak at 3.3% A.D.

The stock is then washed and discharged into second chlorine mixer and tower identical to the first stage.

The amount of chlorine that can be used to

The amount of chlorine that can be used to advantage in this stage is determined by the severity of the previous stages and the concentration of alkalinity in the pulp.

The second chlorination is followed by another caustic extraction using ½ as much caustic and 140°F.

The pulp has been going through a process of purification rather than bleaching up to this point. The actual whitening process can now be accomplished with a minimum of hypochlorite bleaching liquor.

The first hypochlorite stage is a high density

The first hypochlorite stage is a high density cell similar to the caustic cells with screw discharge at the bottom. Consistencies of 10 percent are maintained and a temperature of minus 90°F. The pH is maintained in a safe minus 90°F. The pH is maintained in a safe range by addition of caustic soda.

A second hypochlorite stage follows using two low density (6%) towers in series. The temp-erature and pH are controlled in the same

This is followed by an SO, flash tower where the stock is agitated at a pH of 5.5 for 1 hour. After washing, the stock can go directly to low density storage for the paper mill or by shutting off dilution water it can be conveyed by belt to high density storage.

Flexibility of the Bleach Plant

As mentioned earlier, flexibility was essential in the operation for coping with the various colors and wood species that we are called on to process.

system of 3-way valves and pipes along

A system of 3-way valves and pipes along with the necessary chemical treating equipment makes it possible to alter the bleaching sequence several different ways.

For instance, 100% Douglas fir can be bleached better by using the first caustic cell as a high density hypochlorite stage. This is necessary only for color in the range of 85GE or better.

We can also skip any of the stages, using only that number necessary for the particular grade in process.

During periods when semi-bleach, 30.0 to 70.0 GE are being made more than naif of the plant is bypassed.

In the very near future we expect to use this equipment for special sulfite bleaching, during the periods when it is available.

The operation is a continuous one so it is apparent that any change in either consistency bleachability must either be corrected at ce or compensating chemical treatmenace or started. compensating

The consistency controller has done a good job, so our only touchy point is changes in bleachability or as often happens, changes in

the percentage mixture of wood species.

We have found the operation to be much more easily controlled by making most of our compensating chemical changes entering the hypo. stages rather than to do it farther back the system.

The tests we make for control purposes areconsistency—Wiles bleachability and pH. Everything else is recorded by instrument.

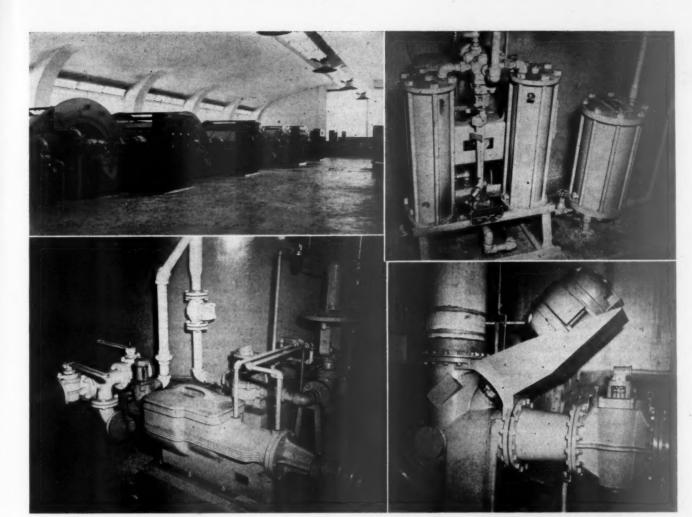
Statistics on Plant Operations

The plant uses approximately 70,000 gal-

lons of water per ton of pulp.

The steam usage is in the range of 4,000 pounds per ton.

The average chlorine usage expressed in percent of the total by stages is as follows (The



PHOTOS TAKEN BY PULP & PAPER in modern new kraft plant at Crown Z mill in Camas, Wash., illustrate equipment described in this paper by Superintendent J. V. Savage.

At upper left is domed top floor showing Impco washers. Note there are no impeding pillars. Glass brick walls are shown.

Upper right: Lectrodryer made by Pittsburgh Lectrodryer Corp., on ground floor, which treats air before it is used in Cl₂ system.

Lower left: Treet-O-Control meter linked to Percent Proportioneers Treet-O-Unit which dilutes 50% high density caustic solution from storage to operating consistency.

Lower right: Impco angle pump driver by Allis Chalmers 15 hp. motor delivers stock to secondary hypochlorite stage.

caustic Pulp):	is	the	actual	usage	based	on	A.D.
First cl	nlor	inati	on				75%
Second	chl	orina	tion		*************		10
First ca	ust	ic		***********	************	*******	3v
Second	car	ustic			*************		1v
First hy	ypo	chlor	ite		***********	******	10
Second	Hy	poch	lorite	**********	*******	******	5
Sulphur	di	oxide					
Caustic	use	ed fo	r buffe	r	************		50v

The SO₂ stage has been found unnecessary for pulp to be used in slush form by our own paper machines. It is used only on pulp to be dried and baled for export.

As you, of course, know the principal purpose of SO₂ is to prevent color reversion on the dryers or in storage. This appears to be more true of pulp than of paper.

The electric power usage is 196 K.W. per ton when all stages are used. The electrical layout includes a system of interlocks which are important in a continuous system.

nectudes a system of interlocks which are important in a continuous system.

A kick out of any important motor will automatically kick out the equipment ahead of the failure, back to the first point where a build up of pulp can be handled.

All of the motors in the entire plant are operated from the top floor where ammeters indicate the lead and signal lights indicate from a distance whether or not individual motors are operating.

motors are operating.

Like everything else connected with the industry the final verdict is determined by the

quality of the product coming off the dry end of the paper machine. To date we have made paper from the vari-ous bleach grades in weights from \$5 lbs. to 200 lbs. for a wide variety of uses.

Wage Agreement Same For West Canada Mills

Under the terms of a new contract signed by operators and unions in British Columbia's pulp and paper industry, basic wages of \$1.06 an hour remain the same this year as in 1948.

The contract, affecting 5,000 employes of Bloedel, Stewart & Welch, B. C. Pulp & Paper Co., Pacific Mills and Powell River Co., provides for re-opening of negotiations after four months if requested.

Five new concessions follow:

1. Two additional holidays with pay, making total of five.

2. Two weeks' vacation with pay after three years' service instead of five years. 3. Increased night shift differential from four to five cents per hour.

4. Broadening of call time provisions.

5. Adjustment of job rates.

Hi-Jinks in California

One of the annual "big events" in the Southern California paper trade, the Hi-Jinks of the Paper Mill Men's Club has been scheduled for Friday, Sept. 30. Hundreds of members and guests attend this day of sports and entertainment when wholesale paper men play host to their customers.

C. J. Warren, Paper Container Mfg. Co., is general chairman this year. His program chairmen are: A. Carter Flinn, finance; J. C. Fischer, program; Neil B. Sinclair, reservations; Merle M. Paup, entertainment; Fred R. Schroeder, greeter; Jack L. Perrin, golf; Lou Levine, soft ball; Frederick R. Ward, door prizes.

EDWIN R. BARTLETT, president, Hooker Electrochemical Co., Niagara Falls, N. Y., was elected a board member of the National Industrial Conference Board for the coming year. The Conference Board, founded in 1916, is non-profit organization which gathers and distributes facts essential to industrial progress.

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New BMT Plant

More than 1,000 customers, mill representatives, company officials and others visited the new three story concrete Oakland, Calif., paper distributing plant of Blake, Moffitt & Towne recently. The building, with more than 100,000 sq. ft. of warehouse space is four times the size of the former building. J. L. O'Connell is division manager.

Reliance Booklet

Buyers of integral horsepower motors are offered a new 8-page booklet by The Reliance Electric & Engineering Co., in which are concisely presented the latest selection data on the company's precisionbuilt A-C motors. Copies of bulletin B-2101 are available from Reliance's sales promotion department, 1076 Ivanhoe Road, Cleveland, O.

Koppers Bulletin

The Chemical Division of Koppers Co., Inc., has issued a 27-page technical bul-letin describing physical and chemical properties and listing important indus-trial uses of the highly fluorescent compound, beta-Methyl Umbelliferone. Copies of this bulletin No. C-9-111 will

be sent on request by Koppers Co., Inc., Chemical Div., Pittsburgh 19, Pa.

New Washington Chart Ready

Worthington Pump and Machinery Corp announces that a new selection chart, based on normal applications handling air with atmospheric intake pressure is now available upon written request on letterhead addressed to Worthington Pump and Machinery Corp., Publications Dept., Harrison, N. J.

Hanna Engineering Book

Hanna Engineering Works offers Catalog 236, on Hanna Low Pressure Cylinders, i n c l u d i n g dimensional drawings, construction features and capacities of all standard sizes. Requests should be directed to Hanna Engineering, 1765 Elston Ave., Chicago 22, Ill.

Infilco Bulletin

Infilco Inc., Chicago manufacturers of water conditioning and waste treating equipment, announces a new bulletin, "Waste Treatment to Comply with Stream Pollution Control Regulations." Copies of Bulletin 70 are available on request from Infilco, 325 West 25th Place, Chicago 16, Ill.

Yes! Go West!

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Pacific Coast Supply Company
PORTLAND, OREGON - SAN FRANCISCO, CALIFORNIA

Norton Forms Third U. S. Sales Region

Norton Company has established a new Central U.S. sales region, it is announced by Ralph M. Johnson, vice president in charge of sales.

It includes territory around Cleveland and Detroit. Formerly, Cleveland was part of the eastern region and Detroit the western region. Donald L. Price, Detroit district manager for the company's abrasive division since 1944, was appointed sales manager of the new region.

The eastern region, now including New England, Philadelphia and Pittsburgh districts, remains under George A. Park, sales manager. W. Earle Shumway is sales manager, Western region, directing Chicago, St. Louis and Pacific Coast districts.

New Container Organization

The General Container Corp. has been incorporated with headquarters at 19 West 44th St., New York City, to license, manufacture and sell plastic packaging inventions of Harry F. Waters. It is claimed that more than 100 patents have been issued on the Waters invention.

J. A. Rainier, senior partner of J.A. Rainier & Co., is president.

Pennsalt Changes

R. S. Roeller, former field sales manager, is new manager of sales of the Heavy Chemicals division and Albert H. Clem is assistant manager of sales of the Special Chemical division, Pennsylvania Salt Manufacturing Co.

Westinghouse Elects McKibbin and Jewell V-P's

John H. McKibbin, manager of advertising and sales promotion, and James H. Jewell, manager of apparatus sales, have been elected vice presidents of Westinghouse Electric Corp. Herbert P. Mac-Donald was named assistant treas-

Safety Winner

South Glens Falls mill of Scott Paper Co. is winner of the national safety contest staged by the Scott organization for all its operations throughout the U. S. As a result, "Scott, Junior", the monkey which symbolizes that it does not pay to monkey with safety, is now happily housed at the upper New York converting plant.

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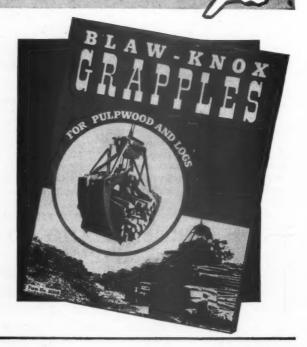
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SOUTH

Chester Rozyskie Dies

Chester T. Rozyskie, Southern representative of H. Waterbury and Sons Co., felt manufacturers, died suddenly April 6, at Savannah, Ga. Mr. Rozyskie was born Mar. 8, 1913, in Richmond, West Virginia, the son of Adam and Emma Rozykie, and was educated in different schools in the South. He had considerable experience in mills of International Paper Co.'s Southern Kraft Division. Just prior to joining Waterbury & Sons, he had been with the Georgetown mill.

H. L. BROWN, president of Brown Paper Mill Co., Inc., Monroe, La., is on a trip abroad.

FRANK AHRENS is now general superintendent of the Mechanical and Power Departments of Champion Paper & Fibre Co.'s Pasadena, Texas, mill. He has been with the mill since it started in 1936.

JOE JEFFERSON, machine tender, a golfer less than a year, defeated BOB BUCK, assistant bag plant shift superintendent, 2 and 1, to win the Union Bag & Paper Corp.'s annual Calder Cup handicap tournament at Savannah. Joe had a net 69; Bob a net 70.

M. R. HAMARAT has been promoted to industrial engineering group leader in charge of that group in the box plant of Union Bag & Paper Corp., Savannah, according to J. M. MACBRAYNE, chief industrial engineer.





MATTHEW B. BARKLEY (left), is President of recently formed Southern Corp. of Charleston, S. C. WILLIAM McINTOSH, JR., of Savannah, Ga. (right), is co-founder of the organization. Beth men are experienced in the Southern industry Among lines they represent: Allis-Chalmers Mfg. Co., Owen Bucket Co., Buckner Process Co., Brown-Hutchinson Iron Works, American Manganese Steel Div., and Glover Machine Works.

Executive Changes Made At Tuscaloosa Mill

Enlargement of the executive staff has been effected by Gulf States Paper Corp., Tuscaloosa, Ala. The changes made included:

Vice President F. M. Dickinson became manager in charge of sales, production and forestry.

Jack Warner, who returned from World War II to be the mill's production manager, is now vice-president for sales.

W. G. Reynolds has been named production manager.

L. M. Champagne, who had been general superintendent, became assistant pro-

duction manager.

C. M. Ayres became plant engineer.

Vance Miles, who was company forester, was named manager of the forestry department, which has been made a major division of operations.

L. P. Anders, who was in charge of wood procurement, retired on June 1 after 22 years' service with the company.

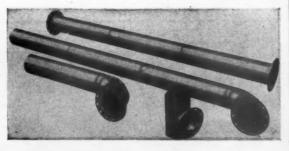
DENNIS J. BRETT, personnel manager for National Container Corp.'s Jacksonville, Fla., mill has become a "Ten Year Club" member. FRED JANZ, chief engineer for the converting plants of the Southern Container Div. also qualified by ten years' service.

W. H. MILLER has become operations coordinator, a new post created by Sonoco Products Co., Hartsville, S. C. He will coordinate the work of standards department in Sonoco's various plants. DAN MORRISON, who started with Sonoco in 1935, became standards supervisor at the Hartsville mill, succeeding Mr. Miller.

H. V. BRADY has been made vice president and general manager of the Negley Bag and Paper Co., West Monroe, La., according to WILLIAM NEGLEY, president of the company. He was recently vice president in charge of manufacturing with the Ryegate Paper Co., East Ryegate, Vt., which is owned by interests associated with the Perkins-Goodwin Company. He is the author of an interesting article on wage incentives in the August 1948 PULP & PAPER.

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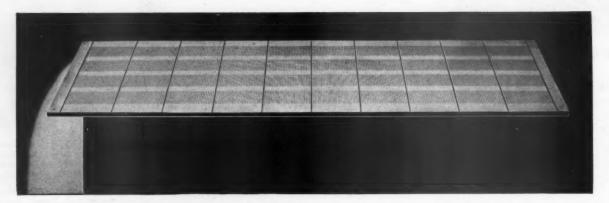
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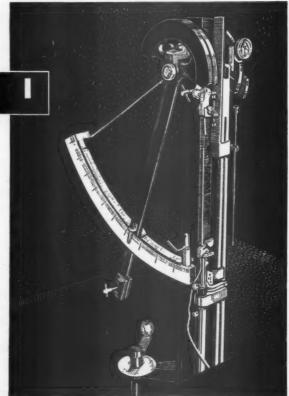
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PULP & PAPER



CANADA





PERCY M. FOX (left), newly appointed President of St. Lawrence Paper Mills Co. and Lake St. John Power & Paper Co. He is also Vice President of Brompton Pulp & Paper Co. and Vice President, General Manager and Director of St. Lawrence Corp. Born in Montreal 49 years ago, he entered the industry in 1917, becoming Manager of Operations for St. Lawrence in 1930 and general manager five years later.

A. T. GARDNER (right), who is now Manager of Provincial Paper Co.'s Milles Roches, Ont., mill. He was formerly Coating Superintendent at the West Linn, Ore., book paper mill of Crown Zellerbach Corp.

COL. C. H. L. JONES, O.B.E., long associated with Price Bros. & Co., Quebec, and other eastern Canadian pulp and paper companies, died in Quebec May 22. He had retired only recently as Price Bros. president and managing director.

B. F. AVERY, general manager, KVP Co., Espanola, Ont., urged initiation of a 50-year silvicultural program by the pulp and paper industry when he addressed a forest management research meeting recently in Montreal.

JOHN I. RANKIN has become chairman of the board of St. Lawrence Paper Mills Co. and Lake St. John Power & Paper Co., as well as president of the holding company, St. Lawrence Corp.

An honorary degree was recently conferred on DR. OTTO MAASS, general director, Pulp and Paper Research Institute of Canada, by the University of Toronto. He was director of chemical warfare for Canada during World War II. K. R. MEYER is development engineer with the E. B. Eddy Co., Hull, Que., after several years' association with Stadler, Hurter & Co., consulting engineers, Montreal.

HAROLD S. FOLEY, president of Powell River Co., and PRENTICE BLOEDEL, president of Bloedel, Stewart & Welch, Ltd., two of Vancouver, B. C.'s top pulp mill executives, will be represented in Europe this summer by their daughters. MARIE FOLEY and VIRGINIA BLOE-DEL planned to sail from New York June 21 for a three months tour overseas.

P. A. FRATTINGER, for several years assistant resident manager of Pacific Mills, Ltd., at Ocean Falls, has become associated with Durand Iron Works in New Westminster, B. C.

P. M. FOX, formerly vice president and general manager, St. Lawrence Paper Mills Co., has been appointed president of the company and its subsidiaries.

ANGUS McARTHUR of Bloedel, Stewart & Welch, Ltd., at Port Alberni, B. C., has been named construction superintendent in connection with the building of a new chipper mill designed to handle 200 cords of waste sawmill slabs daily.

JOHN ASHBY, mill manager of West-minster Paper Co., New Westminster, B. C., recently toured mills in the Middle West states. F. F. FOOTE, secretary-treasurer of the company, also made an eastern trip.

W. H. YOUNG has been appointed assistant plant engineer for Howard Smith Paper Mills at Cornwall, Ont., after serving as assistant paper mill superintendent of the E. B. Eddy mill at Hull.

TOM FINICAL has been appointed production manager of Sidney Roofing & Paper Co., Victoria, B. C. He was form-erly with the Barrett division, Allied Chemical & Dye of which he was technical director in 1941-43. More recently he was manager of manufacturing for the Barett Co. of Canada, Ltd.

MARK WATSON, formerly master mechanic for Sorg Pulp Co., at Port Mellon, B. C., is now located with Nanaimo Sulfate Pulp, Ltd., on the staff of Howard Simons and associates, designers of the

A. T. GARDNER, who for the past three years has been with Crown Zellerbach Corp. at West Linn in a technical capacity, has been made manager of Provincial Paper Co.'s Milles Roches, Ont., mill. He was formerly paper mill superintendent for Provincial at Port Arthur, Ont.



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IMPROVING quality and increasing production through its controlled beating and refin-ing action on a continuous flow basis — no batching or cycling required.

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ACCIDENT PREVENTION was theme at Powell River, B. C., recently when British Columbia Pulp and Paper Industry Safety Association met. Head Table (I. to r.) E. R. Needham, Powell River Co.; Leander Manley, Sec. Mgr., Canadian Pulp and Paper Asso., Western Branch; S. J. Slade, (Chairman), Powell River; E. V. Ablett, and J. H. McLean, Workmen's Compensation Board. Left of Center (reading down) J. E. Cowan, Sorgello Pulp Co.; Gordon Dubberley, B. C. Pulp & Paper Co.; Pard Miles, Bloodel, Stewart & Welch; E. Duck, Canadian Boxes; L. C. Kelley, B. C. Pulp & Paper. Right of Center (reading down) L. J. A. Rees, Pacific Mills; Vic Mahoney, Westminster Paper Co.; A. E. Ramer, Sidney Roofing & Paper Co.; Cyril Hague, Pacific Mills; Ed Tucker, B. C. Pulp & Paper.



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 WILLIAM N. CONNOR, Jr., Canton, Mass.
 L. H. BREYFOGLE, Kalamazoo, Mich.
 WALTER A. SALMONSON, 2514 Northeast 59th Ave., Portland, Oregon
 L. L. GRIFFITHS, Jr., Kalamazoo, Mich.
 HAROLD H. FISH, Syratives, N. Y.



FRANCIS R. LOETTERLE (left), is San Franciscobound as new Sales Manager of Pacific Coast Div., National Starch Products, Inc. A chemical engineer he has served in both the New York and Chicage offices. During war years he was a Major with Army Office of Strategic Services in China-Burma.

S. F. "Woody" THUNE (right), is new Sales Manager of Mid-Western Div., National Starch Products, with headquarters at Chicago. He has been with National since 1934 when he graduated as chemical engineer from Worcester Polytechnical Institute. For past three years he has been Sales Manager of the Pacific Coast Div.

Round Table for Mechanics Training Attended by Paper Men

Barney Mullaney, personnel and safety supervisor, Port Townsend, Wash., and Terry Defieux, plant engineer, Camas, Wash., were guest representatives from the Crown Zellerbach organization at a recent American Apprenticeship Round Table, held at the Caterpillar Tractor Co. plant in Peoria, Ill.

At this affair some of the biggest industries of the U. S. pool their knowledge of training methods and programs for mechanics. Caterpillar was the host company and other participants included Ford, Chrysler, Westinghouse, General Electric, International Harvester, DuPont,

K-C Moves to Park Avenue

Kimberly-Clark Corp. will take over the major portion of the 13th floor at 250 Park Ave., New York City, as soon as it is vacated by Crowell-Collier Publishing Co. Crowell is now occupying this and other floors at 250 Park but will move into a new building at Fifth and 51st St. The Kimberly-Clark lease is for an unspecified number of years, and according to Richard T. Tindale, broker, the gross rental on the lease will exceed \$1,000,000.

First office for Kimberly-Clark in Manhattan was merely desk space in the Dun & Bradstreet Bldg. Three years later it moved to 51 Chambers St., and in 1929 to the Chanin Bldg., 122 East 42d St.

J. C. AGGARWALA, who participated in some of the Coast industry meetings while attending the University of Washington, and who was admitted to a doctorate degree at the Institute of Paper Chemistry at Appleton, has joined Messrs. Shree Gopal Paper Mills, Ltd., in India as their chief chemist and development officer. He returned to India some months ago.

DOWNINGTOWN MFG. COMPANY has issued a catalog "Downingtown Primary Water Removal Equipment," available by writing the company at Downingtown, Pa.

"YES! GO WEST"

ATTEND FALL MEETING TAPPI

MULTNOMAH HOTEL, PORTLAND, ORE. SEPT. 12-15, 1949

An outstanding technical program has been arranged that will be woven into four days of sessions, visits to some of the most modern pulp and paper mills in the world, and a day's trip into a scientifically managed forest and woods' operation.

Reserve your space on the TAPPI Special Train from Chicago over the scenic Union Pacific Route. Write hotel for rooms and further information.

YOU CAN'T AFFORD TO MISS IT.

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& WELCH LIMITED VANCOUVER, B. C.

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PACIFIC COAST LUMBER
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Large Stands of Virgin Timber

"HERE TODAY AND HERE TOMORROW"

Sales Offices:

PORT ALBERNI and VANCOUVER, CANADA

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UNITED STATES: THE MEAD SALÉS COMPANY, INC., 230 Park Avenue, NEW YORK, N.Y. UNITED KINGDOM: PRICE & PIERCE LIMITED, 1058 Sun Life Building, MONTREAL, P.Q.

WE PRACTICE WHAT WE PREACH

There are two obvious ways to prepare for a tough market. One way is to cut expenditures, the other is to cut manufacturing costs. Believing in the wisdom of the latter, this company is steadily installing machinery to produce better products at lower costs.

For Paper Mills, the Carthage Multi-knife Chipper offers as great an advance over others as the automobile over the horse and buggy. It is covered by patents and infringers have not produced something "just as good." Last year thirty-nine Carthage chippers were built which is many times the sales record of all other makes. One clever man we all know computes his Carthage Multi-knife Chipper has cut pulp costs \$1.31 per ton.

CARTHAGE MACHINE COMPANY

CARTHAGE, NEW YORK

Pacific Coast Representative: RAY SMYTHE, 501 PARK BUILDING, PORTLAND 5, ORE.

For pumping corrosive liquids such as acids and alkalis

Here are 3 Reasons WHY I-R CHEMICAL PUMPS WILL GIVE

They are ARMORED
AGAINST CORROSION
— with MEANIET

A special, proven alloy that will successfully resist the corrosive action of most acids and alkalis. (Other materials are available)

They are PROTECTED
AGAINST LEAKAGE
— with the <u>USAGOUGGTOG</u>

This new patented gland collects or by-passes for disposal all leakage that may occur from the conventional stuffing They are BUILT FOR EASY MAINTENANCE — and LESS OF IT

I-R chemical pumps are of simplified, rugged construction with maximum accessibility and interchangeability of parts.

THE CAMERON SHAFT-SEAL, Ingersoll-Rand's modern solution to stuffing-box problems, can be installed on all I-R chemical pumps.

YOU BETTER SERVICE

Write, or ask your nearest I-R engineer for a copy of Catalog 7095 describing these modern pumps.

Ingersoll-Rand

Gameron Pump Division. 11 Broadway, New York 4, N. Y.



FIRST ROLL OF WHITE PAPER EVER RUN at Union Bag & Paper Corp. mill in Savannah, Ga., is shown in this picture. C. E. JACKSON (left), Paper Mill Supt., and CHARLES WILSON (right), Asst. Paper Mill Supt., examine sheet. This paper was made from purchased bleached pulp and will be converted into sugar bags.

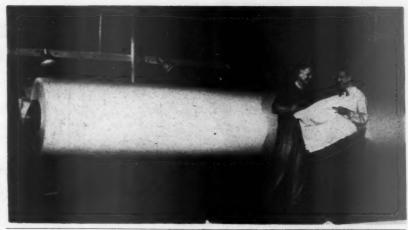
Forecast by G. E. Head

The present industrial decline in production may continue until the second quarter of 1950, but business may again reach the high level of 1948 by the end of 1951, according to Charles E. Wilson, president of the General Electric Co. Mr. Wilson does not expect the present decrease in industrial production to exceed 15% as compared to last year, before production again turns up.

COOSA RIVER NEWSPRINT CO., being built at Coosa Pines, Alabama, elected as directors for 1949-50: Stewart M. Chambers, Donald Comer, E. K. Gaylord, C. B. Hanson, Jr., John R. Kimberly, Ernst Mahler, Thomas W. Martin, Edward L. Norton, Cola G. Parker, Roy A. Roberts, John F. Tims, Jr., A. G. Wakeman, and Ralph M. Watt. New directors were Mr. Chambers of the Oklahoma Daily Oklahoman, Mr. Roberts of the Kansas City Star, Mr. Tims of the New Orleans Times-Picayune, and Mr. Watt, assistant vice president of Kimberly-Clark Corp. Officers elected: Mr. Comer, chairman; Mr. Norton, president; Mr. Wakeman, Executive vice president and general manager; Mr. Watt, vice president in charge of sales; Walter Bouldin, secretary; W. H. Clifford, treasurer; P. A. Bachelder, assistant secretary-treasurer.

DR. EDWIN SUTERMEISTER and JOHN RICH were two of the recent speakers at the series of lectures being given at the Pulp and Paper School of the University of Maine, Orono, Me., by outside talent. Dr. Sudermeister, research chemist at S. D. Warren Paper Co., Cumberland Mills, Me., spoke on paper testing and a few days later Mr. Rich, of Improved Paper Machinery Co., Nashua, lectured on equipment.

ADVISORY COMMITTEE to the Pacific coast technical section, Canadian Pulp and Paper Association, has been appointed by the western branch of the association, including R. H. R. YOUNG, Pacific Mills; I. H. ANDREWS, Powell River Co.; R. PARADUS, Sorg Pulp Co.; GEORGE BURGON, Canadian Forest Products, Pacific Veneer Division; M. F. SMITH, Sidney Roofing & Paper Co; L. C. KELLEY, B. C. Pulp & Paper Co.; LEANDER MANLEY, secretary-manager, CPPA western branch.





from birch and aspen now come semi-chemical pulps

ABUNDANT and fast growing, these hardwo are capable of vast increases over standard yields after sodium sulphite treatment followed by SPROUT-WALDRON refining.

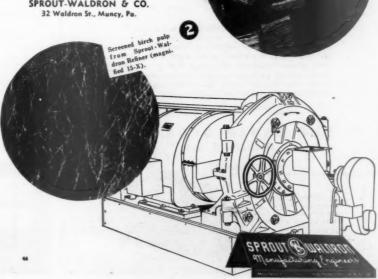
Readily bleached and with high initial strengths. such pulps may be substituted for bisulphite in book and comparable grades.

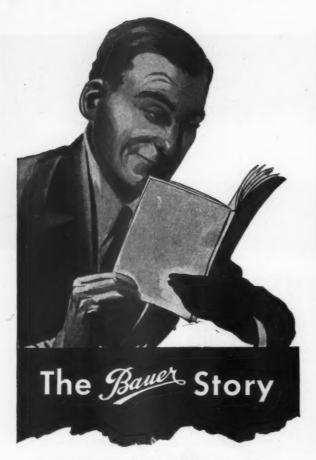
Low power and high increments of clean, uncut fibers, offer inducement to serious consideration.

SPROUT-WALDRON offers you its technical

knowledge and experience in con-







Get "The Bauer Story" and learn why mills successfully use Bauer disk pulpers on the following materials.

GROUNDWOOD SCREENINGS
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STEAMED SOFT WOODS
STEAMED HARDWOODS
SEMI-CHEMICAL PULP
WASTE PAPERS
STEAMED OR CHEMICALLY COOKED STRAW
ASPLUND FIBER
UNTREATED (GREEN) WOOD CHIPS
BAĞASSE
And for cleaning stock by dispersing pitch and wood dirt.

Today mills that have operated Bauers for years are beginning to replace older equipment with new or are ordering additional Bauers as part of expansion programs—experience-backed-evidence that Bauers really do a thorough, fast, economical fiberizing job.

User mills identified on request.

Complete data files

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No distortions due to mechanical strains or temperature changes develop in the new Hauer.



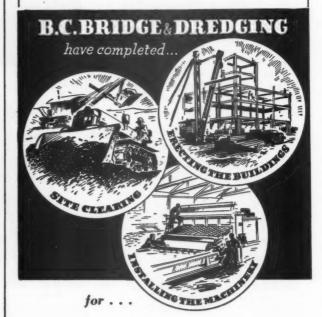
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Portland, Oregon

ONE CONTRACTOR For All Phases

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PULP and PAPER MILL CONSTRUCTION



POWELL RIVER DEVELOPMENT PROGRAM

BLOEDEL, STEWART & WELCH, LTD.'s
Sulphate Pulp Mill at Alberni

are completing

H. R. MacMILLAN EXPORT CO., LTD.'s
Sulphate Pulp Mill at Nanaimo

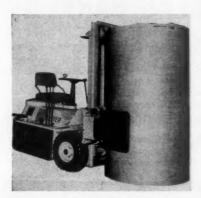
and are preparing the site for

COLUMBIA CELLULOSE CO.

For faster . . . more efficient . . . more economical work on your pulp or paper mill.

BRITISH COLUMBIA BRIDGE DREDGING

544 HOWE STREET VANCOUVER B.C.



This paper-roll grab for handling rolls ranging in diameter from 23 to 36 inches and weighing up to 1700 pounds, has been developed by the Hyster Co., Portland 8, Ore., for use with its "20" lift truck (2,000-pound capacity).

New Automatic Multi-Wall Bag Machine

An automatic multi-wall bag machine coupled with a new type of 2- and 4-color printing press developed and successfully used in Sweden, is being introduced to the American bag industry by The Sandy Hill Iron & Brass Works.

Four types of machines are said to cover the full range of bag sizes including the multi-wall SOS type with special attachments for such items as window, cellophane and dust-proof bags. In addition to making high grade specialties and allover printed bags, these machines can also be used for standard grocery bags at high speeds.

Among advantages claimed for this machinery are: The operation of the bag machine and the printing press with 2- or 4-colors at the same time; higher speed on specialty bags; smaller number of machines to handle all range of bag sizes; time saving when changing orders; quick start-ups. It is reported that color changes can be accomplished in an average of five minutes.

A complete unit is now being readied for operation at The Sandy Hill Iron & Brass Works plant. This unit will be used as a demonstration unit for bag and printing industry officials.

A 4-PAGE BROCHURE, "Zerolite Insultation," presenting new Johns-Manville insulation for low temperature service is now ready for distribution and copies may be obtained from Johns-Manville, 22 East 40th St., New York 16. N. Y. It provides essential data on sizes, temperature limits, conductivity, strength, water absorption, combustibility, etc. Also included are suggested uses for Zerolite which comes in the form of sheets, lagging, and pipe insulation.

British Columbia Figures

Total value of pulp and paper production in British Columbia last year, including loading and freight within the province, was \$73,989,00, according to official figures issued by the British Columbia Forest Service.

BYRON JACKSON CO., pioneers in design of many specialized lines of centrifugal pumps, including Depwell Pumps. First developed in 1901, this line of centrifugal pumps now comes up to its golden anniversary with improved appearance. Henry Dreyfuss, noted industrial designer, collaborated with BJ Deepwell Pumps.

American Cyanamid Meeting

The American Cyanamid Co. held a general sales meeting for its Industrial Chemicals Division and its Plastics and Resins Division in Kalamazoo, Mich., recently. All mid-western sales and technical representatives for the two divisions involved were in attendance, along with Division and Department Heads.

Meetings were at the Gull Lake Country Club under supervision of Arthur J. Campbell, division and general sales manager of the Industrial Chemicals Division.



High speed, low-cost sand and gravel handling has helped make concrete one of today's greatest bargains in building materials. Early attempts at mechanization were successful—but chutes were often ripped to shreds in a few short weeks.

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Pioneer came up with the answer in Tensilite Chute Lining. This super abrasive-resisting rubber lining not only outlasts steel many times, but is replaced in minutes instead of hours or days by skilled or unskilled labor. Sometimes nailed, other times riveted, bolted, or vulcanized in place, Tensilite is available for lining any type of chute, for high-speed, low-cost handling of almost any bulk material—wet or dry. Another plus, Tensilite Chute Lining reduces noise to a minimum.

If you handle bulk materials—solid or liquid—chances are Pioneer Rubber can help you lower the costs.

PIONEER RUBBER MILLS

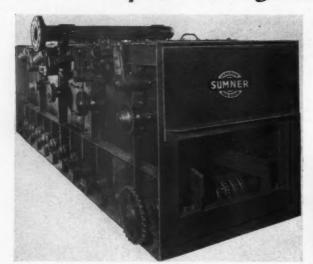
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New Improved Hydraulic "SLAB BARKER"



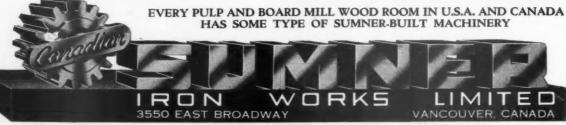
SUMNER

These improvements in design and material are the result of extensive field experience by our Engineering Dept. and are now offered to the Timber Industry to ensure:

- 1. Greater and more sustained production
- 2. Reduced maintenance
- 3. More efficient operation

SOME OF THE IMPROVEMENTS INCLUDE

- Conveyor chain moving slabs entire length of Barker
- Chains suspended (on sprockets) to hold slabs steady under water jet
- "V" shaped trough throughout length of Barker to positively de-bark all slabs
- · ALL Chains are powered
- · New type oscillating jet for better de-barking



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